FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

SEPTEMBER, 1956

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District of Columbia Fire Department conducts dual pumper tests in shadow of the Nation's Capitol—See Page 744

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Dual Pumper Operations—Washington, D. C., Tests
Costly Detroit Fire Teaches Lessons
Cleveland Asphalt Plant Makes Hot, Costly Fire

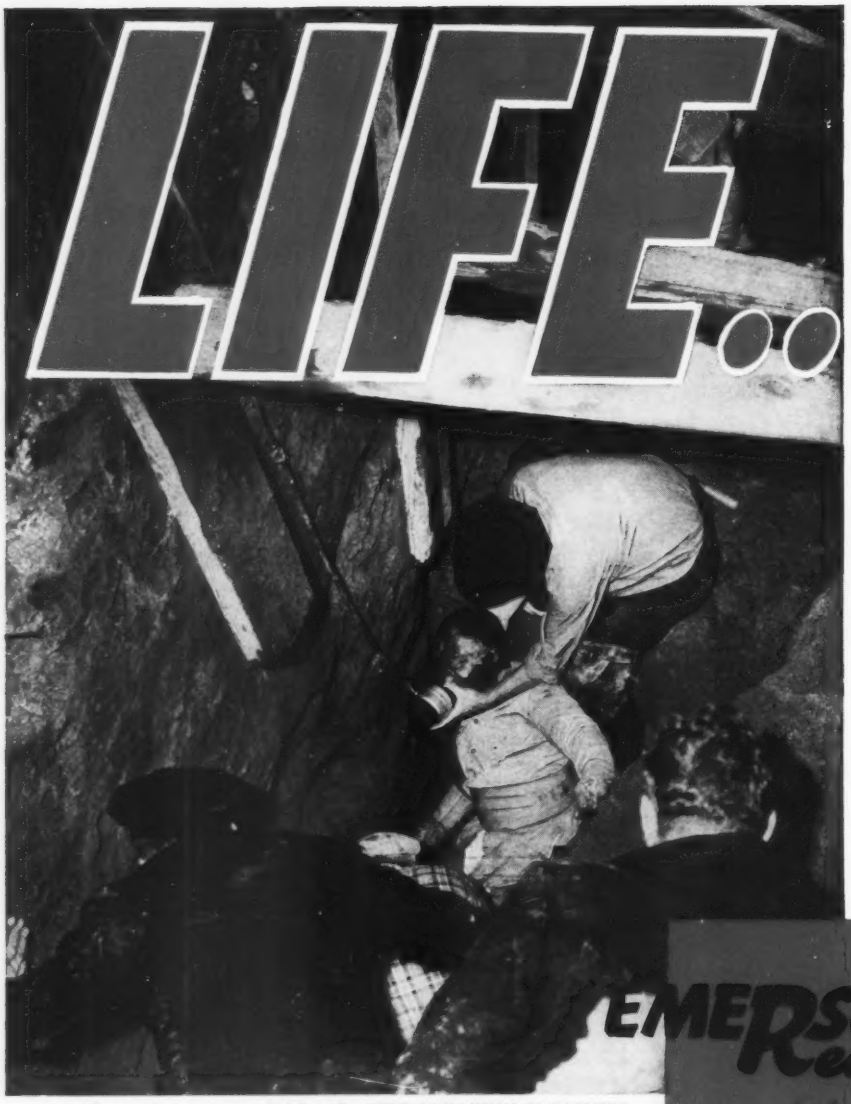

LIFE...
LINE
to a victim in a cave-in
. . . or in a collapsed building or mine shaft
. . . trapped by machinery or under an overturned vehicle . . .
in a tank or the hold of a ship . . .
EMERSON Resuscitator

Photo of rescue recorded by The PHILADELPHIA INQUIRER

From hundreds of feet away **EMERSON EXTENSION HOSES** can bring the breath of life to trapped victims, saving lives you could not reach with bulkier equipment. They connect instantly to standard Emerson models, and add new life-saving power to the equipment you already have. Ask your Emerson representative, or drop us a line at the factory.

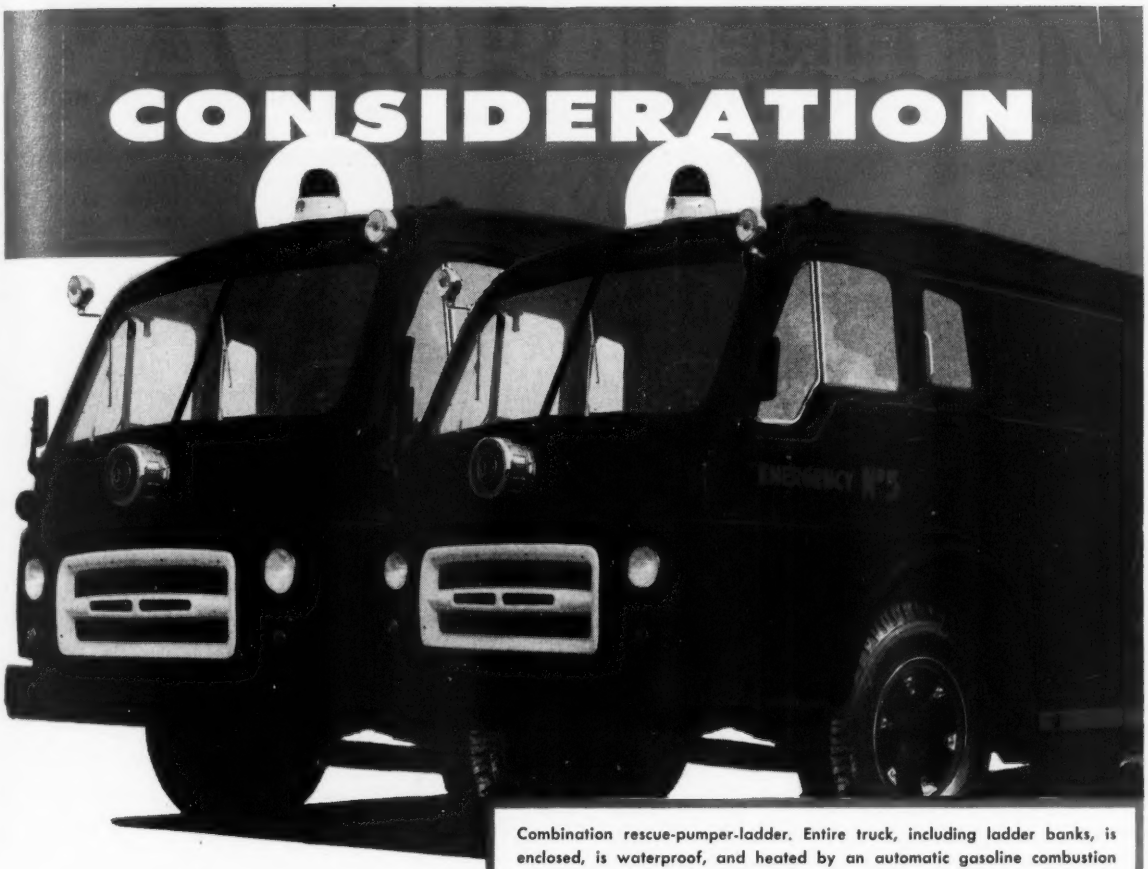
Emersons are **SIMPLE** to operate and **SAFE** for adults, children, or infants. They are **ACCEPTED** by the American Medical Association (since 1942) for use **BY LAYMEN.** They **PROVIDE SUCTION,** alternating with the pressure phase, to give vital aid to the circulation.

"Simplest and Safest"

J. H. EMERSON COMPANY

52 COTTAGE PARK AVENUE, CAMBRIDGE 40, MASSACHUSETTS

CONSIDERATION



Combination rescue-pumper-ladder. Entire truck, including ladder banks, is enclosed, is waterproof, and heated by an automatic gasoline combustion heater. Driver's cab opens right through to rear of body. There is ample space for First Aid and resuscitation equipment, as well as for loaded stretchers. Equipped with 1000 g.p.m. Class A pump and booster tank. Constructed on an International Cab-Over-Chassis, so driver's compartment can be tilted forward for easy servicing. Built by American Marsh Pumps Ltd. at Stratford, Ontario.

AN OBVIOUS CANADIAN CHARACTERISTIC—reflected in the design of two outstanding fire trucks for Calgary and Edmonton.

Specifications prove that fire officials, while not neglecting fire-fighting requirements, have given exceptional CONSIDERATION to the health, safety and survival of their men, as well as any and all possible victims.

Specifications prove that the manufacturer, while over-looking none of the customers basic requirements, gave exceptional CONSIDERATION to improved design, to increased utility, flexibility and serviceability under the unusually severe extremes of northern weather.

Ultimate CONSIDERATION on the part of both is proven by the recommendation and specification that this fine piece of apparatus should be equipped with FEDERAL model Q sirens and Beacon Ray Lights . . . the finest protective "team" for *any* emergency equipment!

Your apparatus, old or new, your firemen, and your public deserve the CONSIDERATION of maximum protection. Equip your existing vehicles *now*, and be sure to specify FEDERAL model Q sirens and Beacon Ray lights on your new apparatus!

Write for Catalog No. 300 *today!*

FEDERAL SIGN and SIGNAL Corporation

8702 S. State St., Chicago 19, Ill.

FIRE ENGINEERING

VOL. 109 SEPTEMBER, 1956 NO. 9

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THE ISSUE BEFORE THE HOUSE

This is a time of big issues . . . on the national political scene . . . on the world stage . . . and on the fire front.

There is also a big issue in the fire publication field — FIRE ENGINEERING's "Fire Chiefs' Conference and Buyers' Guide Number."

The big issues on the political and economic fronts will be resolved by big men —big in mental, moral and spiritual stature.

The big issues that confront the fire service will likewise be resolved by big men — by mental, moral and spiritual leaders.

FIRE ENGINEERING, big in editorial and advertising acumen, and in the number and quality of its readers and advertisers, will discuss these vital issues in the biggest and best of its 1956 numbers.

It will report the progress made in solving the present-day critical issues of fire suppression and fire prevention and the issues that lie ahead.

Since 1877, FIRE ENGINEERING has been named and re-elected as the "Journal of the Fire Service." The same sound platform that has given its readers and advertisers alike so much value for their money is still the governing policy of its publishers.

Don't miss the big October Progress Number!

The Publishers

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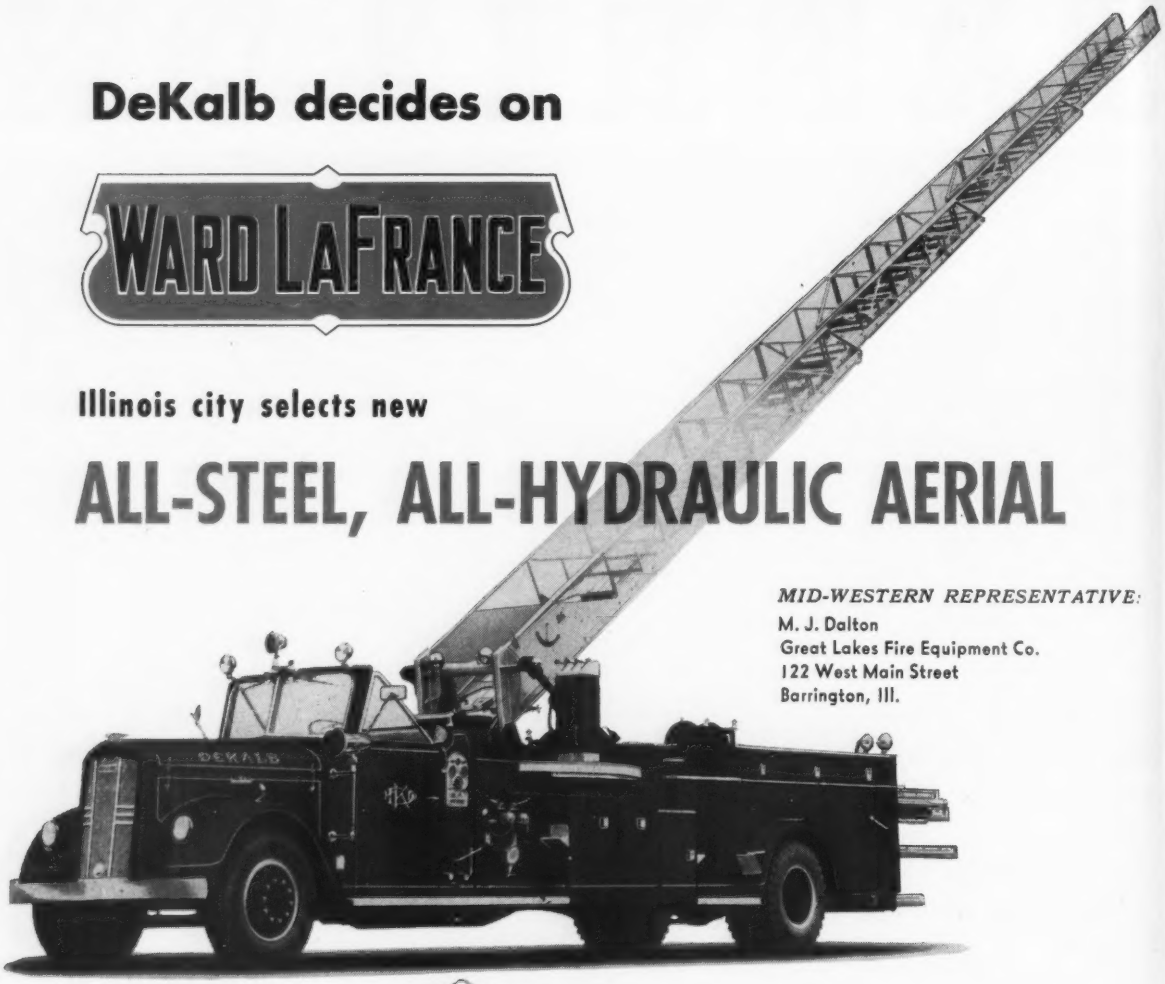
Illinois city selects new

ALL-STEEL, ALL-HYDRAULIC AERIAL

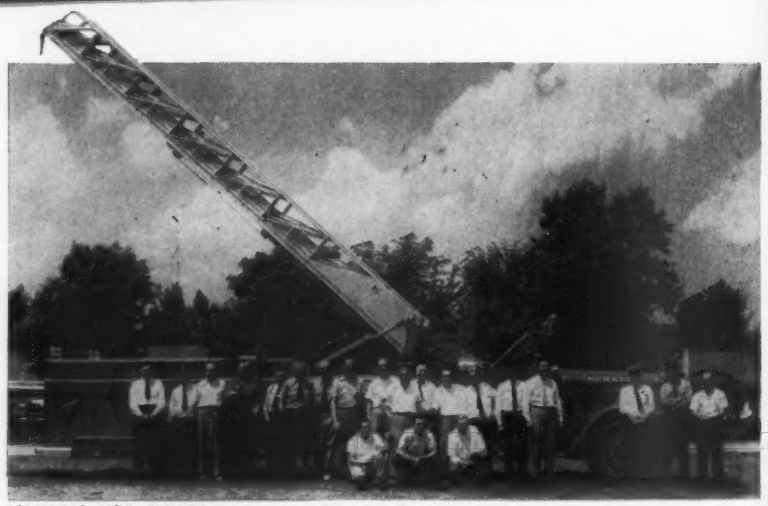


MID-WESTERN REPRESENTATIVE:
M. J. Dalton
Great Lakes Fire Equipment Co.
122 West Main Street
Barrington, Ill.

• LATEST ADDITION to the DeKalb, Ill. fire department is this new Ward LaFrance Aerial. Its hydraulically-operated steel ladder extends a full 85 feet, enabling it to reach the top of the city's tallest buildings.

Fire Chief Clayton Kennedy calls the Ward LaFrance Aerial "The finest I have ever seen!" Safe, compact, powerful Aerial includes a 750 g.p.m. pump as an added optional feature. Its ladder has overlapping telescopic sections which provide stability. Rubber-covered foot rungs insure safe footing.

INVESTIGATE WARD LA FRANCE All-Steel, All-Hydraulic Aerial for your community. Available in tractor-drawn or 4-wheel models, powered with the latest design, heavy duty Waukesha fire fighting engine. Ladders in three lengths: 65, 75 or 85 ft. Write Ward LaFrance today . . . request representative to call.



ILLINOIS FIRE CHIEFS inspect new Ward LaFrance Aerial

WARD LaFRANCE TRUCK CORPORATION

Fire Apparatus Manufacturers for over 38 Years

GENERAL OFFICE & FACTORY: Grand Central Avenue, Elmira, N.Y. Tel 3-5631. DIRECT FACTORY BRANCH: 139th Street & Bruckner Blvd., New York 54, N.Y. Tel CYpress 2-3300. EXPORT: Ward LaFrance International, Inc., Elmira, N.Y., U.S.A. Cable Address: "Wardtruck"

B.F.Goodrich

New treatment protects hose against mildew and rotting

MOISTURE causes mildew. And mildew quickly ruins unprotected fire hose by causing weak spots that burst under pressure.

Excessive moisture is what they have plenty of at Ocean Beach, New Jersey. A heavy mist rolls in there every night and literally wets down the town. Fire hose doesn't have much chance to dry out.

That's why the Ocean Beach Fire Department was one of the first to buy B. F. Goodrich hose, protected with the exclusive Superseal treatment. And it's paid off. Chief Kenneth Reck, shown at right above, says, "Our Superseal-treated hose has remained in excellent condition."

B. F. Goodrich hose, with Superseal protection, actually has 10 times more resistance to mildew attack and rotting than other treated hose. What's more, this special chemical treatment also protects against moisture absorption and freezing, increases the hose's resistance to fire.

Unlike ordinary treatments that just coat the surface of the hose, Superseal solution penetrates every cord in both the inner and outer jacket, prepares the hose for all sorts of weather.

And most important, the B. F. Goodrich Superseal treatment that brings you extra safety and longer hose life, costs no more than ordinary treatments. Your B. F. Goodrich fire hose distributor can give you more information, or write *B. F. Goodrich Industrial Products Co., Dept. M-733, Akron, 18, O.*

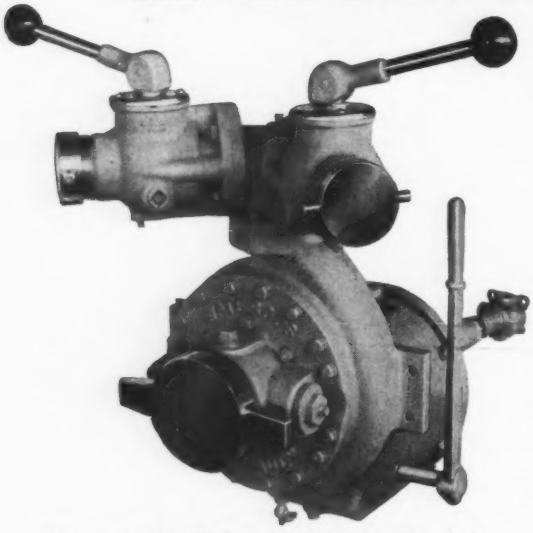
B.F.Goodrich

INDUSTRIAL PRODUCTS

A HOWE PUMPER

gets the job done...

FASTER



Capacity is 500 GPM or 600 GPM. Impeller shaft bearings sealed from water by self-adjusting, corrosion resistant seal. Fully ball bearing equipped.

This HOWE pumper, with front mounted pump, has far greater flexibility. The pump can be operated while the truck moves. This is especially important in fighting grass fires. In addition, there is more tank room . . . for rural and suburban use. The single-stage, centrifugal Waterous pump has helical, constant mesh gears for quiet operation, long life. HOWE provides the proper gear ratio to operate at moderate gear speeds, eliminating need for auxiliary cooling of the gear case. The rugged single plate, dry, automotive type clutch may be engaged or disengaged at any speed. Independently operated ball type 2½" discharge valves are locked in position, operate at any pressure. Phone, write or wire HOWE *before* YOU buy.

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Member FAM (Fire Apparatus Manufacturers Association)

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"dependable fire apparatus since 1872"

FIRE APPARATUS COMPANY

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BELOW: PUMPER IN ACTION . . . ROLLING AND PUMPING

THE NEW M·S·A AIR-MASK

. . . available with AIR or OXYGEN

Improved design, and the selective use of materials to fully meet service conditions put the new M.S.A. Air-Mask in a class by itself.

This unit, designed to bring maximum protection and comfort to users in unbreathable atmospheres, supplies air or oxygen in exact accordance with breathing needs. During exhalation, the flow ceases—an economy measure that greatly lengthens service life.

Here are a few of the construction details—

. . . a small attractive demand regulator.

. . . large, easy-operating, all metal handwheels—longer wear.

. . . large, well-defined figures on pressure gauge for easy reading.

. . . the high pressure hose is made of wire-inserted neoprene for increased wear.

. . . the redesigned cylinder valve connects directly to the cylinder and the improved working parts of the valve provide greater serviceability and less maintenance.

. . . the compact cylinder frame fits close to the body.

. . . the nylon harness is easily adjusted and provides maximum strength. It is highly chemical and water-resistant.

. . . the new color scheme is an attractive dark green and yellow. This striking appearance makes it easier to spot men in working areas.

Write today for complete details on this new M.S.A. Air-Mask . . . you'll be taking a step forward in bringing greater efficiency, safety to your fire-fighting operations.

MSA
SAFETY EQUIPMENT HEADQUARTERS

Call the M.S.A. man on your every safety problem . . . his job is to help you

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201 North Braddock Avenue, Pittsburgh 8, Pa.
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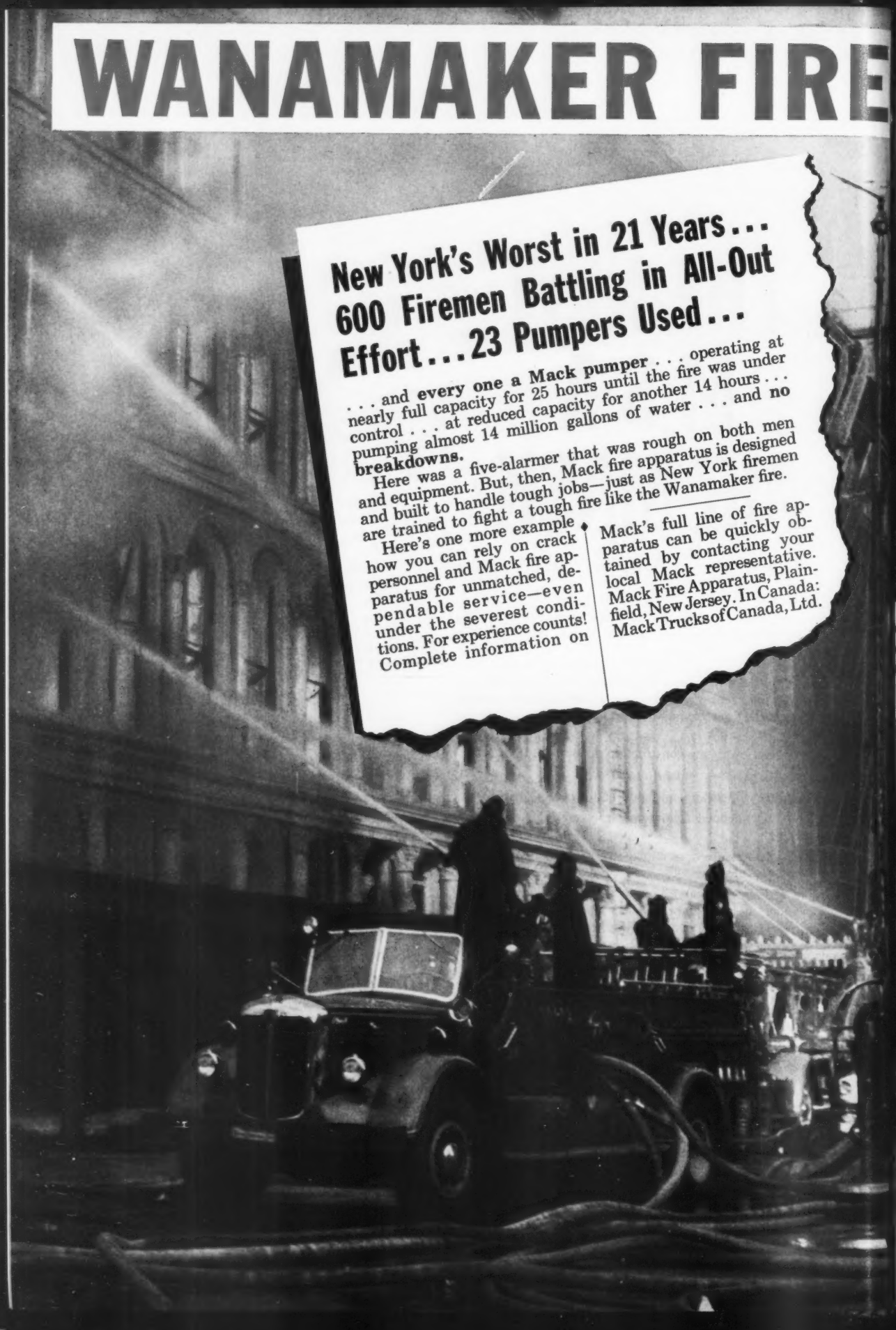
WANAMAKER FIRE

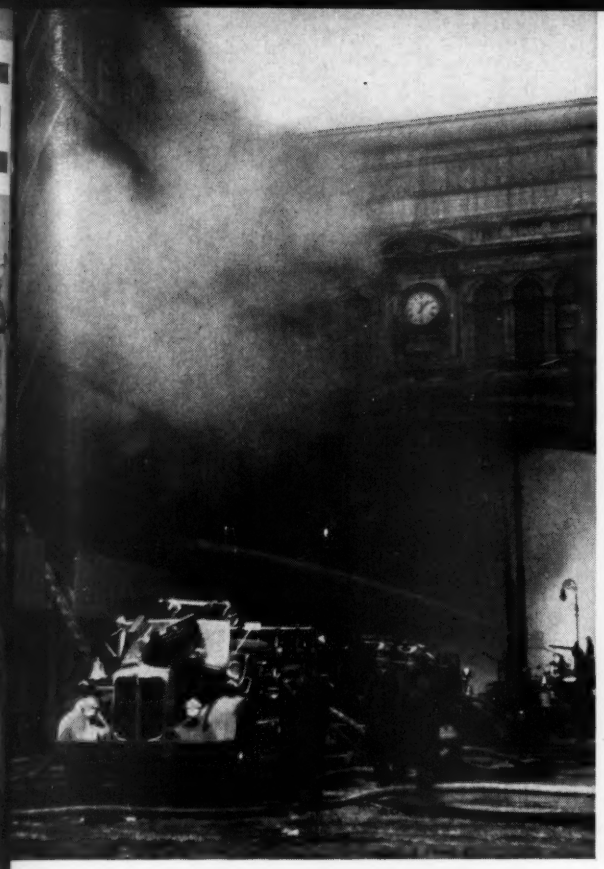


New York's Worst in 21 Years... 600 Firemen Battling in All-Out Effort... 23 Pumpers Used...

... and **every one a Mack pumper** ... operating at nearly full capacity for 25 hours until the fire was under control ... at reduced capacity for another 14 hours ... pumping almost 14 million gallons of water ... and **no breakdowns.**

Here was a five-alarmer that was rough on both men and equipment. But, then, Mack fire apparatus is designed and built to handle tough jobs—just as New York firemen are trained to fight a tough fire like the Wanamaker fire.

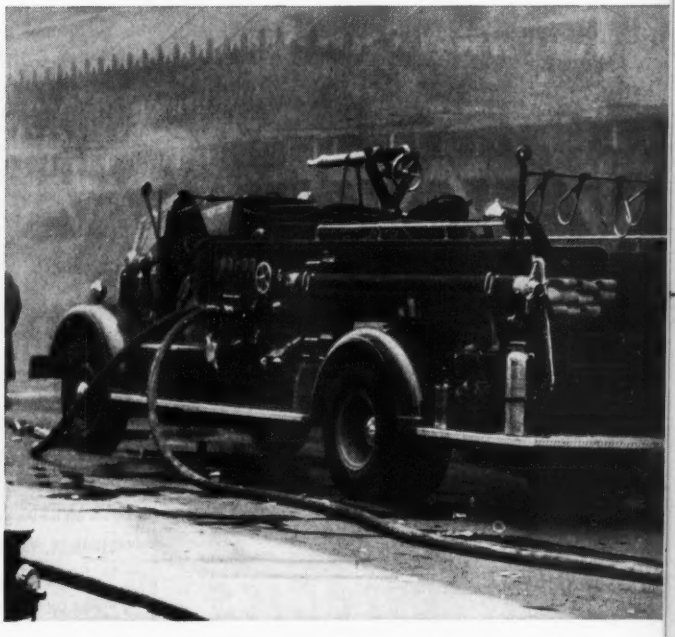
Here's one more example how you can rely on crack personnel and Mack fire apparatus for unmatched, dependable service—even under the severest conditions. For experience counts! Complete information on Mack's full line of fire apparatus can be quickly obtained by contacting your local Mack representative. Mack Fire Apparatus, Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.



Wanamaker's store and its familiar bridge...built in 1862, e building was New York's first with a cast iron skeleton and cade. 178 firemen were hurt in subduing the five-alarm blaze.

Symbols of modern fire-fighting techniques—a fireman with a walkie-talkie and a piece of Mack fire apparatus...apparatus that you can depend upon even under the severest conditions.

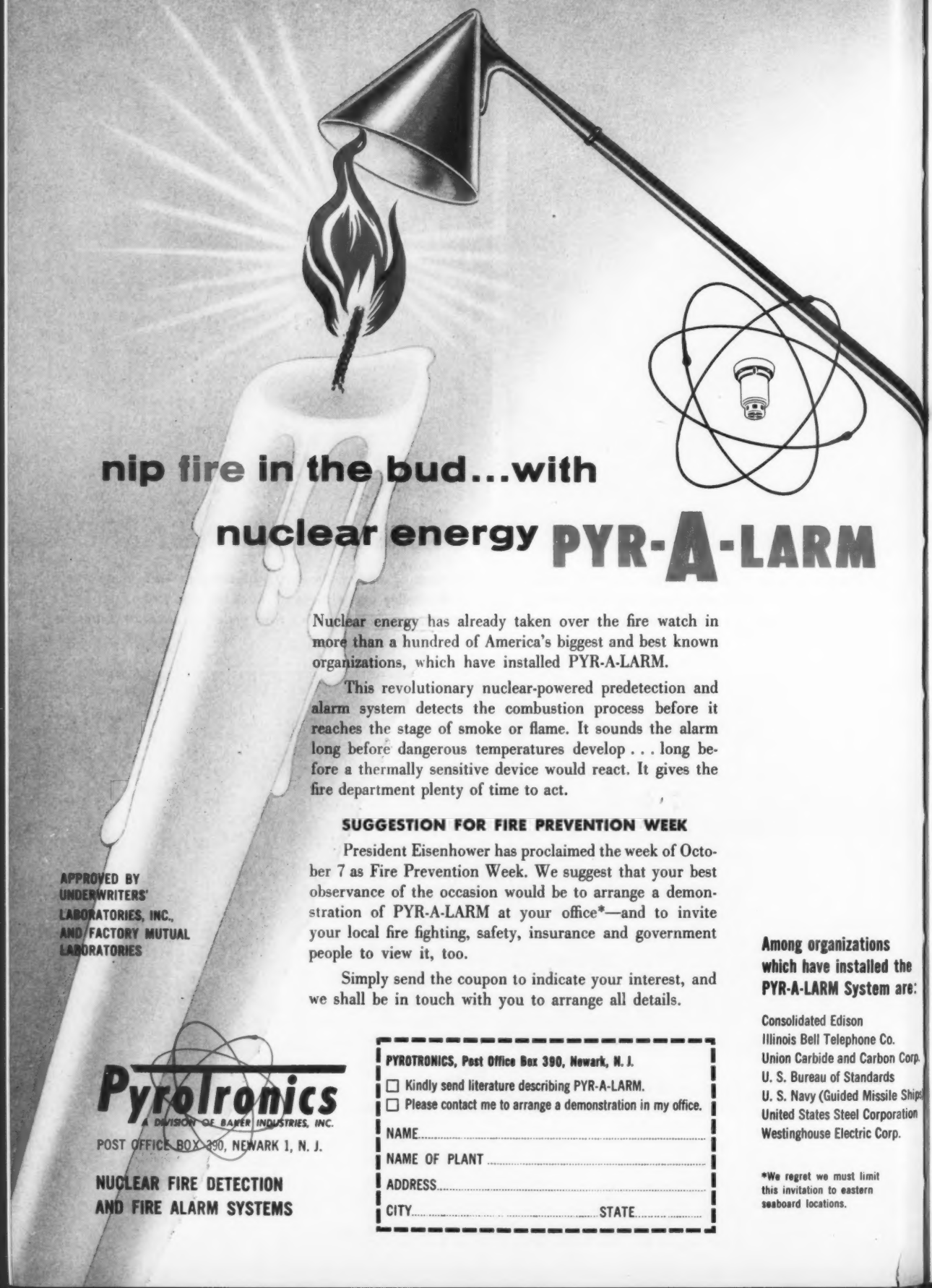
Still at it after 36 hours of hard work...over 60 pieces of apparatus were used in putting out one of New York's biggest fires in over 2 decades.



One of the Mack high-pressure pumpers battling the Wanamaker fire. The turret nozzle is capable of delivering 2000 gpm.

MACK ... *first name for* FIRE APPARATUS

COMPLETE LINE OF PUMPERS — 500 to 1250 GPM ... SQUAD AND HOSE WAGONS ... 65', 75', 85' AERIALS ... COMBINATION LADDER TRUCKS



nip fire in the bud...with nuclear energy PYR-A-LARM

Nuclear energy has already taken over the fire watch in more than a hundred of America's biggest and best known organizations, which have installed PYR-A-LARM.

This revolutionary nuclear-powered predetection and alarm system detects the combustion process before it reaches the stage of smoke or flame. It sounds the alarm long before dangerous temperatures develop . . . long before a thermally sensitive device would react. It gives the fire department plenty of time to act.

SUGGESTION FOR FIRE PREVENTION WEEK

President Eisenhower has proclaimed the week of October 7 as Fire Prevention Week. We suggest that your best observance of the occasion would be to arrange a demonstration of PYR-A-LARM at your office*—and to invite your local fire fighting, safety, insurance and government people to view it, too.

Simply send the coupon to indicate your interest, and we shall be in touch with you to arrange all details.

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A DIVISION OF BAKER INDUSTRIES, INC.
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☐ Please contact me to arrange a demonstration in my office.

NAME.....
NAME OF PLANT.....
ADDRESS.....
CITY..... STATE.....

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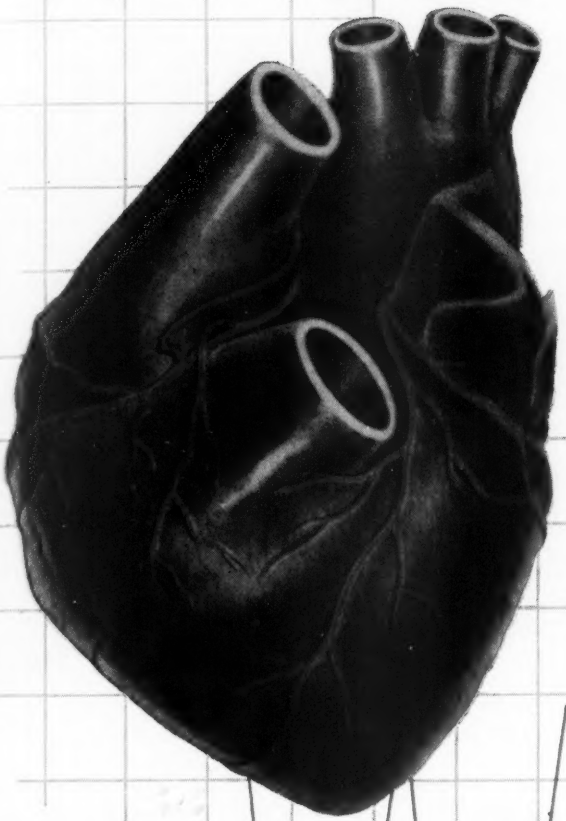
Consolidated Edison
Illinois Bell Telephone Co.
Union Carbide and Carbon Corp.
U. S. Bureau of Standards
U. S. Navy (Guided Missile Ships)
United States Steel Corporation
Westinghouse Electric Corp.

*We regret we must limit this invitation to eastern seaboard locations.



the only

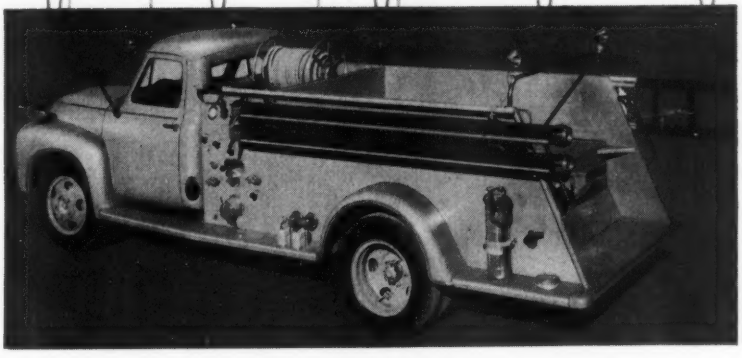
pumper

better than

a **Boardman**

pumper

The *heart* of your fleet will be a dependable, economical BOARDMAN pumper



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THE BOARDMAN CO. 1401 SOUTHWEST 11TH • OKLAHOMA CITY

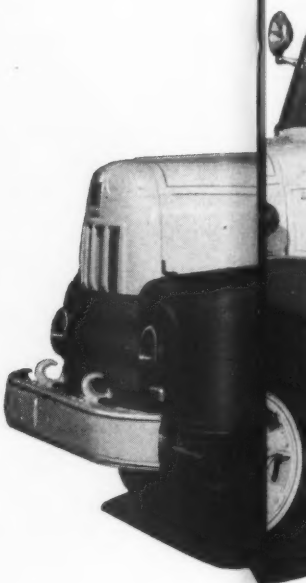
THE WORLD'S FASTEST ACTING,

with the 3-WAY PUNCH

of John BEAN

HIGH PRESSURE FOG

THE ORIGINAL HIGH PRESSURE FOG SYSTEM



John Bean's High Pressure Fog system is distinguished from all other fire-fighting methods by the microscopic size of the fog particles created by the original John Bean High Pressure Fog Pump and patented Fire-Fighter Gun operating at 850 PSI. When driven at high velocity to the base of a fire, these fog particles have many times the surface area and heat absorption power of a solid stream of water. So much so that . . .

ONE GALLON OF WATER AS HIGH PRESSURE FOG
HAS THE FIRE KILLING CAPACITY OF TEN OR MORE
GALLONS DISCHARGED IN A CONVENTIONAL STREAM.

You can extinguish more than 95% of your fires faster . . . use only 10% or less of the water usually required . . . and do it with greater safety and with little or no water damage.

One of fire-fighting's greatest achievements . . .

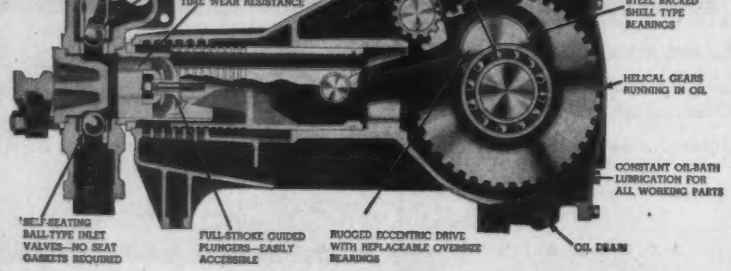
the triple action of John Bean High Pressure Fog

1. **IT COOLS** – as it contacts a fire, John Bean High Pressure Fog instantaneously absorbs heat at the rate of 9,438 BTU per gallon of water (50°F). A single gallon of water, used this way at 100% efficiency, can absorb the heat equivalent to the output of 600 average home furnace fires.

2. **IT SMOTHERS** – by shutting off oxygen from the fire. As the super fine fog particles absorb heat, they expand 1,700 times to form a smothering blanket that displaces the combustion-supporting oxygen.

3. **IT ISOLATES** – by throwing a barrier of "cold steam" between the burning gases and their source of fuel.

the John BEAN HIGH-PRESSURE PUMP – rugged heart of HPF fire-fighters


SPRING-LOADED STAINLESS STEEL DISCHARGE VALVE
HEAVY DUTY DUST-TIGHT CASE
OVERSIZE SHAFT-END BALL BEARINGS
SEAMLESS STEEL CYLINDERS PORCELAIN-LINED FOR LIFE TIME WEAR RESISTANCE
REPLACEABLE STEEL BACKED SHELL TYPE BEARINGS
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RUGGED ECCENTRIC DRIVE WITH REPLACEABLE OVERSIZE BEARINGS
OIL DRAIN

SELF-PRIMING PUMP OPERATES FROM TANK, HYDRANT, OR DRAFT SOURCE

HARDEST HITTING FIRE-FIGHTERS

STANDARDIZED FOR ECONOMY
John Bean Fire-Fighters mount on most standard truck chassis

Note the "PLUS VALUE" features of John BEAN HPF FIRE-FIGHTERS

INTERIZED
EEL COMPARTMENTS

emovable enclosures winter-e the two reel compartments. hese, as well as pump, valves, auges and controls, are armed by engine heat.

OWER
EWIND HOSE REELS

aster, easier hose pick-up with ower operated reels. Hose ys out smoothly and easily ver chrome-plated, vertical nd horizontal roller guides.

00 FEET OF
IGH-PRESSURE HOSE

he 200 feet of special, 3400 ounds burst test hose on each eel can be easily handled by ne man.

20 FEET
OF SUCTION HOSE

Standard equipment includes two 10-foot lengths of 2½-inch hard suction hose, complete with hydrant adapters and suction screens.

LIGHTED CONTROL PANEL

All gauges, valves and controls are centralized for instant operation — illuminated for safety and easy reading at night.

OVER 45 CUBIC FEET OF WEATHERPROOF STORAGE SPACE

Five large capacity, lighted compartments are built in for proper storage of accessory equipment. Easy opening flush-type door latches.

POWER TAKE-OFF FOR IN-MOTION PUMPING

Pump is coupled to engine so that pump can be operated for fighting grass fires, etc., while truck is moving. Control for engaging pump is located conveniently in the cab.

500-GALLON SIX-COMPARTMENT TANK

Smooth cornering, starts and stops assured by six-compartment tank with low center of gravity. Prevents undesirable water surge.

When minutes count . . .
and you need instant action
. . . or when water's scarce . . .
YOU CAN DEPEND ON
John BEAN HIGH PRESSURE FOG

WRITE TODAY FOR COMPLETE DETAILS

JOHN BEAN ® fmc FOOD MACHINERY AND CHEMICAL CORPORATION

Lansing 4, Michigan
Dept. 126

San Jose 1, California
P. O. Box 145

A Division of Food Machinery and Chemical Corp.

The Signal Should Be SAFA The Signal Should Be SAFA

Verbal Messages are often MISUNDERSTOOD

Use Telegraph . . . . be safe with a SAFA system

In any language the Little Red Box means fire...

Your silent watchman 24 hours a day.

Its simplicity of operation and dependability enables even the excited person to send the message with no misunderstanding.

A silent watchman in buildings with interior fire alarm systems connected to master fire alarm boxes.

The telegraph fire alarm system is owned and operated by the City with its own personnel operating, maintaining and keeping system in service 24 hours a day.

OUR TECHNICAL KNOW-HOW IS AT YOUR DISPOSAL.

SAFA ALARM DIVISION, INC., THE *Fyr-Fyter* COMPANY

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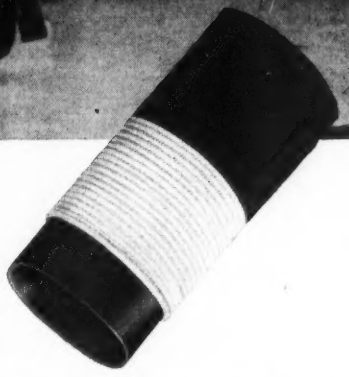
The Signal Should Be SAFA The Signal Should Be SAFA

Quaker

Here's why this PETROCHEM fire hose is on guard throughout this D-X Sunray refinery



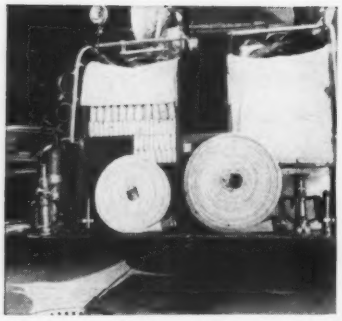
Get acquainted with your Quaker-Quaker Pioneer distributor. You'll find him of real help—not only for your regular needs — but also in emergency situations requiring extra fast supply. Write for free brochure and name of your nearest distributor.

This hose does *more* than fight fire. It fights off deterioration by oil and chemicals, stands up to abrasion, resists weather and functions safely under high pressure. Why? Because its oil-resistant Neoprene tube is enclosed in tough, wear-defying *Du Pont Dacron* impregnated with oil-proof Neoprene . . . this provides a tough, light, flexible hose, resistant to oil, both inside and out. Actually this hose is so strong that it can take pressures up to 500 lbs. and temperatures up to 300°F. . . . and so flexible that you can actually knot it. Easy to store, too! Either coiled or folded it takes little space.

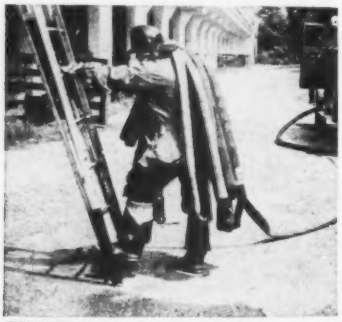
These are some of the reasons why D-X Sunray's Oklahoma refinery has this hose . . . the first made for oil and chemical industries, at all fire stations . . . and why it will pay you to consider it in your safety planning. Complete Quaker-Quaker Pioneer line includes hose for every purpose, belting, packing and moulded rubber for every use.

HKP
DIVISIONS OF
H. K. PORTER COMPANY, INC.

H. K. PORTER COMPANY, INC.
QUAKER RUBBER DIVISION
Philadelphia 24, Pa.
QUAKER PIONEER RUBBER DIVISION
San Francisco 7, California



ORLANDO, FLA.—Durable hose of "Dacron" is used because it coils easier . . . takes up less space.



COLUMBUS, O.—Hose made with "Dacron" is preferred because it's light—easier for climbing.

CHARLESTON, W. VA.—Hose of "Dacron" is employed because it gets into action quickly . . . dries fast.

BIRMINGHAM, ALA. Fire Department reports: Lighter, more flexible hoses of "Dacron" adapt well to latest fire-fighting techniques.

Birmingham Fire Dept. reports:

"Hose made with DACRON handles easily, resists mildew"

REG. U.S. PAT. OFF.

The Birmingham Fire Department uses more than 20 miles of hose made with "Dacron"* polyester fiber. The switch to "Dacron" was ordered by Chief Hoyt M. Ayers in 1955. Chief Ayers finds the new hose lighter and more flexible—two vital qualities meaning easy handling, fast action.

Used as the load-carrying "filler" cord, "Dacron" enables manufacturers to make stronger, lighter-weight hose that is easier to handle even at full pressure—pulls smoothly around obstacles and lends itself to latest fire-fighting techniques. Because it is not weakened by mildew, "Dacron" helps reduce hose loss, particularly in warm climates like Birmingham's.

Du Pont makes "Dacron" and supplies the yarn to all leading fire-hose manufacturers. The combination of the unusual advantages of "Dacron" and hose manufacturers' skill has resulted in a superior fire hose. The next time *you* need hose, be sure it's made with "Dacron". E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Del.

ADVANTAGES OF FIRE HOSE MADE WITH "DACRON":

- Lighter
- Stronger
- Dries faster
- More flexible
- Cuts loading time
- Saves space

"Dacron" is Du Pont's registered trademark for its polyester fiber.

For Better All-Around Performance Specify Hose Made with "Dacron"

POLYESTER FIBER

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

MANY INDIAN FIRE PUMPS

ARE STILL IN SERVICE AFTER 20 YEARS . . .

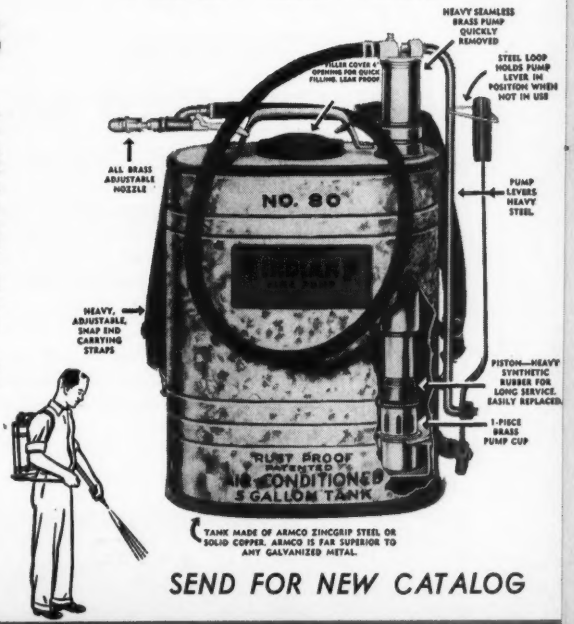
Designed and built to take punishment,
INDIAN FIRE PUMPS stay on the job for years with little or no maintenance.

No. 90 SLIDING PUMP TYPE

We discarded soda acid type extinguishers and equipped with **INDIAN FIRE PUMPS** which give great satisfaction with only clear water. Our new truck is equipped with **INDIANS** instead of the usual chemical extinguishers. We cannot praise them too highly."
Chief H. B. Wells,
Newbury, S. C.

Both types of INDIAN FIRE PUMPS are approved by UNDERWRITERS' LABORATORIES.

No. 80 LEVER TYPE PUMP and HANDLE


HEAVY SEAMLESS BRASS PUMP QUICKLY REMOVED
STEEL LOOP HOLDS PUMP LEVER IN POSITION WHEN NOT IN USE
FILLER COVER • OPENING FOR QUICK FILLING. LEAK PROOF
ALL BRASS ADJUSTABLE NOZZLE
PUMP LEVERS HEAVY STEEL
NO. 80
HEAVY, ADJUSTABLE, SNAP END CARRYING STRAPS
PISTON—HEAVY SYNTHETIC RUBBER FOR LONG SERVICE. EASILY REPLACED.
1-PIECE BRASS PUMP CUP
RUST PROOF PATENTED AIR CONDITIONED 5 GALLON TANK
TANK MADE OF ARMCO ZINCGRIP STEEL OR SOLID COPPER. ARMCO IS FAR SUPERIOR TO ANY GALVANIZED METAL.

SEND FOR NEW CATALOG

D. B. SMITH & CO.
"FOR 70 YEARS THE LEADER"

PACIFIC COAST DISTRIBUTORS

Hawaiian Equipment & Rubber Company, Inc. San Francisco 7, Calif. Helgeln Supply Co.

Fred E. Barnett Co. Portland, Oregon Fred E. Barnett Co. Klamath Falls, Oregon

Hill & Hine Supply, Inc. Seattle 4, Washington L. M. Curtis & Sons Salt Lake City, Utah

CANADIAN AGENTS

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MIDWESTERN

Safety Clothing for FIREMEN

The Original
STRIPED SAFETY COAT

- ☆ ***New Yellow Rubber Stripes!***
- ☆ ***Maximum Visibility!***
- ☆ ***Maximum Durability!***
- ☆ ***Exclusive Safety Features!***

YOU deserve the BEST PROTECTION OBTAINABLE for your hazardous work of protecting life, and property against fire. The Mackinaw Safety Coat with new yellow stripes is the answer! Highly visible stripes are rubberized as part of the material . . . not painted, glued or sewed on. Tests indicate that the new yellow, like black, retains its natural color and has the same durability.

There are many imitations but no substitute for the superior quality, design, fabric texture and safety features you get by specifying MIDWESTERN!

MIDWESTERN
COMBINATION SAFETY SUIT

The Midwestern Rubberized Coat and Bunker Pants make it easy for firemen to keep both warm and dry even in the most severe weather. Close fitting collar and elastic inner sleeve keep out sparks and water. Detachable wool lining. Pants have double-stitched seams, reinforcing rivets at points of strain, large roomy pocket space.

For complete information on our full line of safety clothing for firemen, see your Midwestern dealer. A letter to the factory will also bring you literature and materials for your inspection.

NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN SAFETY MFG. CO. Mackinaw, Illinois

Manufacturers of the Famous **MACKINAW Safety Coats**

FOR FIREFIGHTING OR BOOSTER SERVICE the highly portable, light-weight Marlow Fire Pump can be quickly moved to a fire or water source that a pumper can't reach. For fire-fighting, the unit boosts hydrant pressure or pumps from any pond, or shallow well. Small departments can dispatch it to dreaded second fires. For booster service the pump can be carried by two men to inaccessible water sources. The pump pushes water up hills or over long distances to supply pumpers or tank trucks.

marlows are portable

The Marlow Fire Pump, weighing only 160 pounds ready to operate, *can be placed in service 30 seconds after starting!* Powered with an 8½ hp. engine, the unit runs unattended and delivers up to 100 g.p.m. at 80 p.s.i. It can be stored in pumper compartments or car trunks. Meets recommendations of National Fire Protection Association and performance exceeds minimum requirements. For details, see your Marlow dealer or write for Bulletin F-04.

MARLOW PUMPS • RIDGEWOOD, NEW JERSEY

DIVISION OF BELL & GOSSETT COMPANY • *Branch Factories: Longview, Texas • Morton Grove, Illinois*

Neatest, most rugged lightweight uniform you'll ever wear: DACRON and wool

REG. U. S. PAT. OFF.

His tropical-weight uniform passes inspection every time for neat appearance, scratch-free comfort . . . it's made of "Dacron"* and wool. Even in wet or humid weather, "Dacron" polyester fiber helps it shrug off wrinkles, hold its press. This comfortable tropical-weight uniform offers rugged resistance to wear at critical cuff, pocket, elbow and knee points, cutting replacement costs. Fewer pressings, easy spot removal mean a new low in upkeep, too. Ask your supplier for tropical-weight uniforms of "Dacron" and wool! E. I. du Pont de Nemours & Co. (Inc.), Textile Fibers Dept., Wilmington 98, Delaware.

DACRON
REG. U. S. PAT. OFF.

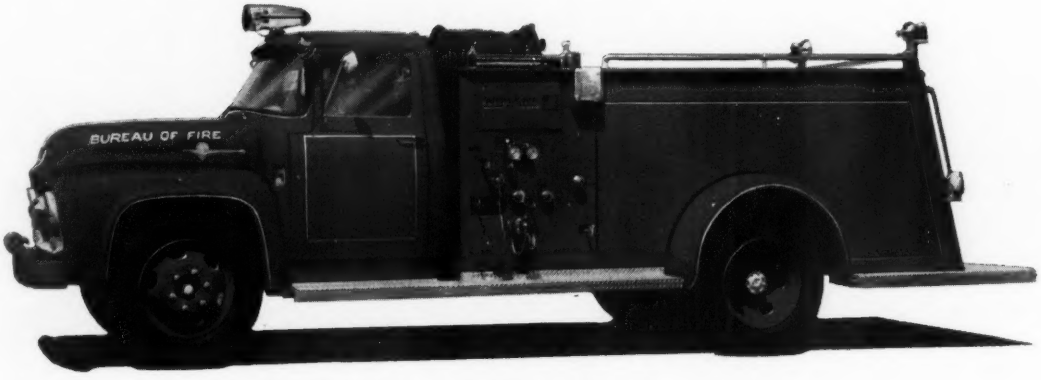
DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

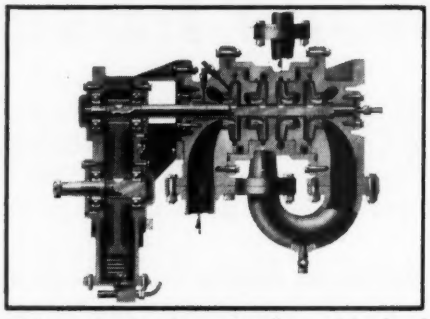
**"Dacron" is Du Pont's registered trademark for its polyester fiber. Du Pont makes fibers, does not make the fabric or uniform shown here.*

AMERICAN LaFRANCE

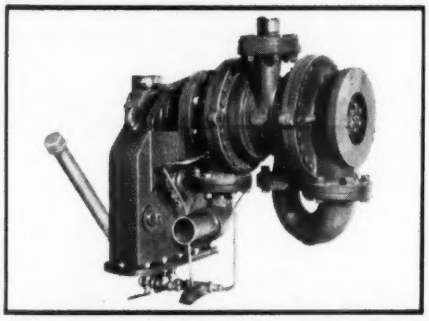
In Atlantic City . . .



3 New AMERICAN LaFRANCE High Pressure Pumps go into service . . .



All bronze housing, bronze impellers and hardened stainless steel shaft. Pump in hydraulic balance. Quiet helical gear drive. Water cooled transmission.



Light and compact, yet tested for pressures of 1,000 p. s. i. Suction provided for water tank, hydrant and draft operation.

Light and fast booster and hose cars for specialized emergency service

The new American LaFrance 4-stage high pressure pump is ideal for meeting the wide range of performance requirements in modern fire fighting.

Ample capacity for attack with 1½ inch lines using fog or spray nozzles (125 g. p. m. discharge at 150 p. s. i. pressure) or attack with one or two high pressure fog lines (60 g. p. m. at 800 p. s. i. pressure). Even higher pressures (1,000 p. s. i) can be obtained if the unit is used where transmission and power take-off will safely transmit the required power.

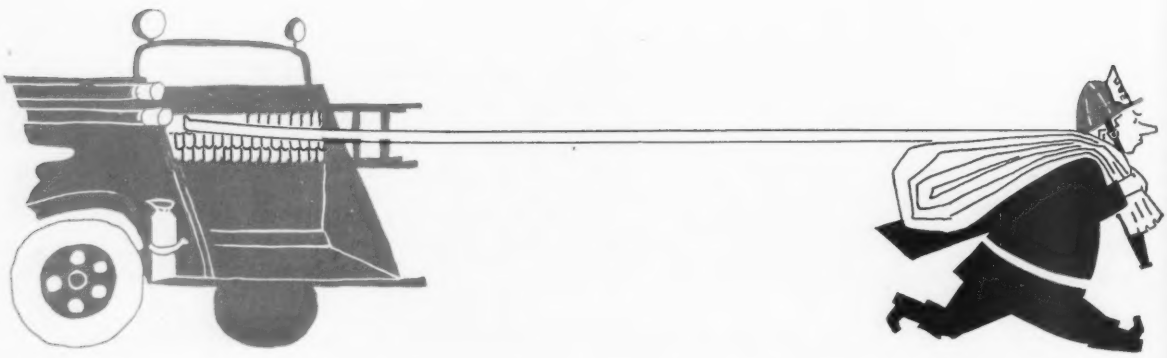
See our representative for complete details and performance data on this new pump mounted on the American LaFrance model or commercial chassis you require.

AMERICAN LaFRANCE CORPORATION

ELMIRA, NEW YORK, U. S. A.

LaFRANCE FIRE ENGINE AND FOAMITE LIMITED

TORONTO, 9, ONTARIO, CANADA



Get to the fire faster -with more hose!

AMERICAN cotton-synthetic jacket hose weighs 18% less, is 27% less bulky and 50% stronger than old-style cotton jacket hose. It has been proved by three years of field service. Why lose time with bulky, hard-to-handle, hose when you can get benefits like these:

CARRY 25% MORE HOSE in the same truck space.

EASIER HANDLING... stays flexible wet or dry, lies flatter, coils better.

UP TO 50% STRONGER... 400 or 600-lb. test.

LONG LIVED—costs you less per foot per year because it lasts longer (much AMERICAN municipal fire hose has been in regular use 25 and 30 years.)

Available in heavy duty, medium weight and light weight jackets, each identified with its woven-in stripe. Every length proof tested with couplings on; test report accompanies shipment. Can be Arcolized to prevent mildew and rot. Order from your dealer or write us now for details.

THE American RUBBER MANUFACTURING CO.

AR-33

Factory & General Offices: • 1145 Park Avenue • Oakland 8, California • Phone OLympic 2-0800

SEATTLE • PORTLAND • SAN FRANCISCO • LOS ANGELES • BOISE • ST. LOUIS • SALT LAKE CITY

Natecs gives SAFE clearance of intersections . . .

even protects against collisions of two emergency vehicles

In the NATECS system, a receiver mounted on the traffic signal at the intersection picks up a beam from a transmitter mounted on the approaching vehicle. Traffic lights automatically set on the emergency pattern. Then a *white* light turns on, *assuring* the emergency-vehicle driver that the intersection is clear.

If *two* signals are received at an intersection from emergency vehicles approaching from different directions, the white light facing the *second* vehicle flashes on and off, warning that another vehicle has priority.

Operation on radar frequencies permits a *narrow* beam that won't affect any signals but those directly ahead (up to ¼ mile) of the emergency vehicle. Completely automatic. No need to flip a switch as the vehicle changes direction. And after the vehicle passes the intersection, traffic lights automatically revert to normal sequence.

EAGLE

EAGLE SIGNAL CORPORATION
Municipal Division
Moline, Illinois

Eagle equipment saves lives . . . saves time

MAIL COUPON TODAY

EAGLE SIGNAL CORPORATION
Municipal Division, Dept. FE-956
MOLINE, ILLINOIS

Please send complete information on Eagle's new emergency traffic control system.

NAME AND TITLE _____

MUNICIPALITY _____

FULL ADDRESS _____

SQUEEZES PAST OBSTRUCTIONS

E & J RESUSCITATOR - INHALATOR - ASPIRATOR

When partial obstructions will not yield to aspiration, or when the air passages are swollen almost shut, the exclusive E & J feature "Precision Flow Control" assumes life-saving importance in emergency rescue treatment.
With it the operator can quickly find just the exact flow of oxygen that will squeeze past obstructions short of complete blockage to provide full inhalation and exhalation at a *slow but life-saving rate!*

FIND OUT MORE ABOUT THIS VITAL E & J FEATURE . . .
Data and demonstration without obligation.
Write to Dept. 544-7 at address below.

E & J RESUSCITATOR • ASPIRATOR • INHALATOR
. . . first name in Resuscitators

E & J MANUFACTURING COMPANY

100 E. Graham Place, Burbank, California

Here's your "Task Force" for any type of fire

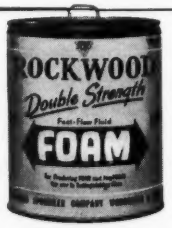
Complete team of Rockwood portable products combines speed, versatility and economy

Separately, each of these Rockwood products has its own particular advantages for fighting various types of fires. Together, they make a mobile, multi-purpose task force that delivers a whale of a lot of protection against *any* type of fire, whether it's Class A (wood, paper, rags, etc.), or Class B (flammable liquids). That includes personnel protection, too, because safety for the men who use them is an essential factor in all Rockwood fire fighting products.

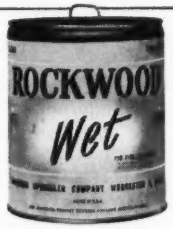
Rockwood's long, practical experience and constant research bring you not only new *efficiency* but new *economy* in fire-fighting methods and equipment. It will pay you to learn more about these and many other Rockwood products. Mail the coupon today for complete information on Rockwood's specialized fire-fighting products.

* **Type SG-60 Nozzle.** A true all-purpose nozzle that fights fire 5 ways. It discharges high velocity WaterFOG, low velocity WaterFOG (with applicator), FogFOAM, solid stream of water or solid stream of FOAM.

FOAM and "Wet" Eductor with the new FW Metering-Check Valve. Introduces Rockwood FOAM or "Wet" into hose lines, automatically proportioning correct amount of FOAM and "Wet" to water. Also usable wherever one liquid is fed into another on a fixed percentage basis.

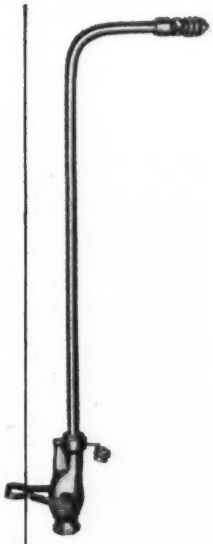


* **Rockwood Double Strength FOAM.** Puts out fires in flammable liquids, and in ordinary combustibles, quicker, at lower cost. Three parts FOAM and 97 parts water create a tremendous heat-resistant blanket. Flows freely at —15°F.

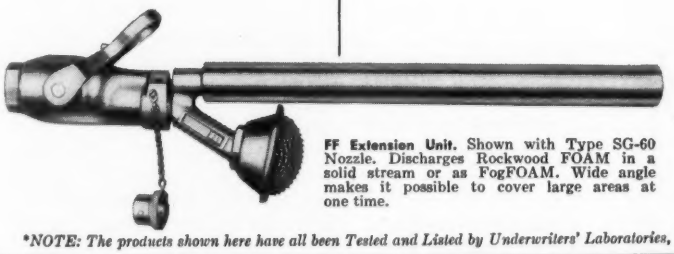


* **Rockwood WET.** One part WET mixed with 99 parts water increases water's penetration and extinguishing action. Gives quickest results against deep seated fires. Saves time, water, manpower.

Bayonet Piercing Applicator. Has a hardened steel cutting tool attached to tip, enabling operator to pierce through partitions, into interiors, etc. Discharges low velocity WaterFOG or FogFOAM.



* **Long Extension Applicator.** Discharges low velocity WaterFOG in an umbrella pattern, smothering fire without causing turbulence to flammables. Excellent personnel protection is another advantage.



FF Extension Unit. Shown with Type SG-60 Nozzle. Discharges Rockwood FOAM in a solid stream or as FogFOAM. Wide angle makes it possible to cover large areas at one time.

**NOTE: The products shown here have all been Tested and Listed by Underwriters' Laboratories, Inc.*

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses

ROCKWOOD SPRINKLER COMPANY
Portable Fire Protection Division
1544 Harlow Street
Worcester 5, Mass.

Please send me your illustrated booklet on Rockwood fire-fighting products.

Name_____
Title_____
Company_____
Street_____
City_____
Zone_____ State_____

Volunteer firemen in Danville, Indiana have fire alarm radios at home

New General Electric Tone Control Receivers Pick Up Fire Call Signals Relayed Through Police Radio System

Bedside Fire Alarm! G-E monitor receiver at home of Captain Campbell makes a 24-hour contact possible. Tone system picks up Danville fire calls only.

Fire Report Coming In! As the police department receives a 'phoned fire report, Danville dispatcher Lelia Brown radios the alarm to fire department volunteers through General Electric receivers in their homes.

Ready To Roll! Danville Police Chief Berzenye checks fire location with Fire Chief Rader. Truck is equipped with General Electric high band two-way radio.

Member turn-out for alarms in Danville, Indiana is consistently high, regardless of the hour. The reason: There are fifteen key members of this crack volunteer fire company who have General Electric radio receivers in their homes. Fire Chief John Rader estimates these radios will pay for themselves in the first three years of operation.

Entire Department G-E Radio-Equipped

All police and fire radio in Danville is General Electric equipment. Two fire trucks and the Chief's car are equipped with complete two-way units, in addition to the police radio and home monitors which are pre-tuned to receive fire calls only. The high band 50-watt system has an operating range of 40 miles. Hendricks County fire equipment is completely radio-equipped. Radio contact with fire and police agencies in neighboring counties speeds mutual aid activities.

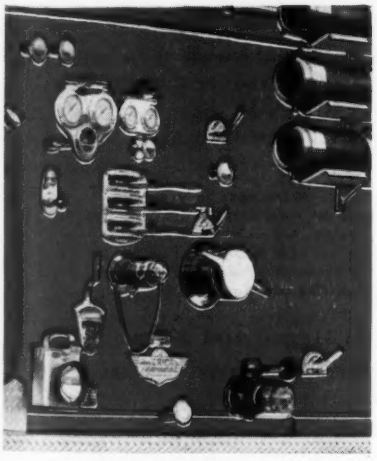
2-WAY MOBILE RADIO

New G-E Progress Line Radios

New Progress Line equipment can provide tone signal calling, automatic re-call, and other important advantages. Ask your G-E Communications Counselor to show you how a system like the Danville network can improve your communications. Or, write: *General Electric Company, Communication Equipment, Section X5996, Electronics Park, Syracuse, New York.*

Progress Is Our Most Important Product

GENERAL ELECTRIC



A typical pump panel. One lever gives you instant selection of *Capacity-Pressure-Series* operation—a Duplex Pump feature.

This bulletin will interest
MEN WHO KNOW FIRE PUMPS
(and those who want to know more!)

With clear text, pictures and diagrams, this new bulletin shows *why* the Barton-American Duplex-Multistage Fire Pump is *different* . . . *how* it was engineered to give you *superior* performance . . . and be *easier* and *faster* to operate.

In *one* unit, this midship centrifugal gives you *two* independent pumps with separate shafts and gears. By moving a *single* lever, you can choose any of *three* pressure and volume selections without touching a valve . . . all at engine speeds lower than 37 MPH road speed!

That's just a sample. We repeat—this bulletin will interest you!

Write Today for Bulletin 8733.

AMERICAN-MARSH PUMPS

BATTLE CREEK MICHIGAN

In Canada: American-Marsh Pumps (Canada) Ltd., Stratford, Ont.

Alabama
Anniston

Arizona
Douglas
Globe

Arkansas
Little Rock

California
Albany
Antioch
Bakersfield
Burbank
Burlingame
Castro Valley
Chula Vista
Corning
Coronado
Daly City
El Centro
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Eureka
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Thibodaux
Ville Platte
Westwego

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Camden
Eastport
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Sanford
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Plymouth
Rockland
Southbridge
Upton
Waltham
Wareham
Westfield
Whitman

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Millville
North Haledon
Rahway
Ridgeway Park
Summit
Teaneck
Towoco
West Paterson
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Arlington Fire Dist.
Auburn
Buffalo
Corning
Cortland
Deer Park
Elmont
Garden City Park
Groton
Hicksville
Levittown
Mechanicsville
New York Mills
Norwood
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High Point
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Mount Olive
New Bern
Statesville
Wallace
Winston-Salem

North Dakota
Grand Forks

Ohio
Akron
Campbell
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Cleveland
Coshocton
Dayton
East Cleveland
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New Brighton
Pittsburgh
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Rankin
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Rhode Island
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240 Progressive Communities give their taxpayers a helping hand

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FIRE ENGINEERING

VOL. 109, NO. 9 SEPTEMBER, 1956

High Roads to Hazard

The greatest highway building program of all times is a fact. Known as Public Law 627, it is impossible to grasp the magnitude or estimate the far-reaching significance of this $32 billion-plus project.

One thing is certain, however: The program to construct 41,000 miles of super-highways and additional unnumbered miles of tributary arteries within the next 13 years will have definite impact upon our national economy, our state and municipal governments and coincidentally, upon the fire services.

For many municipalities and communities the gigantic project will mean shifts in population and business. It will mean new, far-flung industries, new housing and shopping developments; higher land values; increased revenues for some tax-starved communities. The suburbs, in many cases, will become satellite municipalities, with consequent ever-growing needs for municipal improvements such as water, sewer and fire fighting facilities.

Expansion in all municipal services is bound to eventuate. This will inevitably mean more fire departments, larger existing departments, more fire fighters, more fire extinguishing facilities, and of course, more responsibilities for the fire service.

If any single entity were ever designed to inspire growth and expansion throughout the fire service of the nation, it is this fabulous super-road program. But at the same time, it will present its problems, many of them perhaps new to fire fighters. It may help to improve the nation's traffic headache, but it will create growing pains of its own.

Fires on and along these speedways logically, will increase in number, and with the more costly freight cargoes carried, will grow in severity and complexity.

Previous conceptions of response to highway emergencies, and the methods of meeting them, quite likely will require thoughtful review, and readjustment. For example: Consider the laws governing liability to firemen operating outside their own bailiwicks. In most states either there are no adequate protective liability laws, or such statutes as exist are moth-eaten and inadequate. There is no standardization of liability measures between different states.

It must be the concern of the nation's fire service to evaluate existing and contemplated fire suppression measures on and along these highways in the light of the proposed vast program.

Progressive fire chiefs will do well to study the complete provisions of Public Law 627; to review the government's recommendations, as well as those of the National Safety Council's Ten-Step Plan, for cutting the toll and congestion of future highway traffic. Indeed, there are plenty of recommendations on what to do and how to do it. But one important factor is missing:

Nowhere in either the federal or the Safety Council's recommendations (with but one exception, and that dealing with federal appropriations for forest roads) is there provision for safety against fire, or suggestions on how these new highways may be used by the fire service in time of disaster, including possible enemy attack. Nor is there even a hint on how properties contiguous to these super-roads, the businesses and industries and dwellings that will eventually sprout like weeds along them, may be adequately protected against fires with the present inadequate far-flung fire forces.

The first sizeable appropriations under the terms of the Interstate Highway Act are being made. Somewhere in these millions should be more than a pittance, at least, to encourage appropriate study of the entire speedway fire problem. With the 83rd Annual Conference of the International Association of Fire Chiefs in the offing, the matter might well be brought before its sessions. Already, the New England Association of Fire Chiefs has by resolution, requested its legislators to bring contractors, municipal authorities and others responsible for highway safety together with accredited representatives of the fire service.

The time to plan for highway fire safety is on the drawing board—not after the roads have been built and all funds allocated.

Roi B. Woolley

Editor

Two pumper "relay" operation (as distinct from "tandem"). Pumper at left is connected to hydrant and relaying water through 2½-inch line to intake of second pumper, which is supplying four preconnected 1½-inch hand lines of varying lengths. Delivery: 460 gpm of fog from four 1½-inch combination variable and straight stream nozzles

Field Tests by the District of Columbia Fire Department Disclose Factual Data on

Dual Pumper Operations

By MILLARD H. SUTTON
Chief, District of Columbia Fire Department

This excellent report by Chief Millard H. Sutton sheds more light on the interesting question of tandem and relay operations, discussed in the October, 1955, and June, 1956 issues of FIRE ENGINEERING. In June, we asked our readers for a more logical and fitting name for what has been termed tandem pump operation. As you will note in this report, Chief Sutton's definition is "Dual Pumper Operation," which we believe a fitting connotation.
—THE EDITORS

FROM AN ANALYSIS of our most recent large fires, staff discussions arose on how to further reduce long layouts of hose lines to eliminate the pump energy wasted in friction loss. As a result of the discussions of methods which would accomplish this, we decided to explore and test the use of two pumpers from one hydrant, a "dual pumper" operation.

After tests which determined that this method of operation would be practical, and that the water supply was sufficient to support dual pumper operation, the Training Division was directed to instruct all engine companies in this operation. Following is an outline of the training begun June 18, 1956.

Drillground procedure

OBJECTIVE: To show how and when two pumpers can pump from the same hydrant and to give experience in the same.

TIME REQUIRED: Two and one-half hours.

EQUIPMENT: Two engine companies fully equipped.

TEACHING AIDS: Test gauges, pitot tube; blackboard; 4-inch gate for hydrant; F. D. Form 138.1 for use of the instructor to record gauge readings, nozzle pressure, gpm; F. D. Form 138.2 for use of the operator to record gauge readings, layout, tip size and gpm.

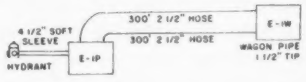
Drill procedure

Designate companies reporting No. 1 and No. 2, for the purpose of identifying the apparatus in the layouts and for recording readings of the gauges (the companies will keep this designation during the entire drill).

Brief companies on objectives of drill, layouts to be used, and issue F. D. forms to be filled in during the drill by the operators.

First Evolution:

LAYOUT: No. 1 Company's pumper connected to hydrant with 4½-inch soft sleeve; two 300-foot lines of 2½-inch hose to wagon; wagon connected to wagon pipe, 1½-inch tip.



Get water in proper manner and pump at proper pressure. Take and record gauge readings.

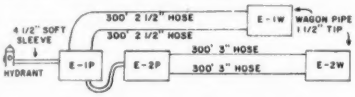
Meanwhile No. 2 Company will lay two 300-foot lines of 3-inch hose to their wagon.

Second Evolution:

With No. 1 Company still pumping:

Dual pumper operation from one hydrant. Pumper at right is connected to domestic hydrant. Pumper at left is connected to intake of first pumper by joining two 4½-inch soft suction sleeves. This type of connection may be necessary when one soft sleeve is not long enough to connect to the intakes of both pumpers

LAYOUT: No. 2 Company's pumper connected to suction of No. 1 pumper using 4½-inch soft sleeve; two 300-foot lines of 3-inch hose to wagon; wagon connected to wagon pipe, 1½-inch tip.



Get water in proper manner and pump at proper pressure (No. 2 Company).

Take and record gauge readings (both companies). Shut down.

Discussion:

Explain meaning of drop in hydrant pressure when No. 1 pumper supplied required amount of water (600 gpm).

Explain further drop in hydrant pressure when No. 2 pumper supplied required amount of water (600 gpm).

Explain friction loss from hydrant to first pumper and between pumper intakes.

Explain difference in friction loss in 3-inch hose and 2½-inch hose.

Third Evolution:

Brief companies on how some hydrants will not supply two pumpers and that, in the third and fourth evolutions, the hydrant will be cut down to between 900 and 1000 gpm to demonstrate how this condition can be determined in advance from the gauge readings on the first pumper.

Partially close gate on hydrant (900 to 1000 gpm).

LAYOUT: No. 1 Company—same.

Get water and pump at proper pressure (No. 1 Company). Take and record gauge readings.

Fourth Evolution:

LAYOUT: No. 2 Company—same.

To demonstrate the above instruction have No. 2 Company get water and attempt to pump at proper pressure; stop when the intake gauge on pumper reads 5 pounds.

Dual pumping tests at the training school showing double-pumper hookup, using a single 25-foot section of soft suction with 2½-inch gated connection at the right-hand pumper. Tests were also made utilizing the same pumper layout, but two 15-foot soft suctions with 2½-inch and 4½-inch gated connections

Average Friction Loss Between Pump Intakes

TYPE OF CONNECTION	G.P.M.				
	500	600	700	800	1000
4½" gate, 1–15' 4½" soft sleeve	2	6	7	8	12
4½" gate, 2–15' 4½" soft sleeves	4	6	7	10	13
4½" gate, 1–25' 4½" soft sleeve	4	6	7	10	13
2½" gate, 1–15' 4½" soft sleeve	13	20	31	42	60
2½" gate, 2–15' 4½" soft sleeves	18	26	36	49	62
2½" gate, 1–25' 4½" soft sleeve	16	23	35	41	60
2½" gate, 9' 2½" hose, 1–15' 4½" soft sleeve	19	27	39	61	82
2½" gate, 25' 3" hose, 1–15' 4½" soft sleeve	21	30	49	64	96

Take and record gauge readings (both companies.) Shut down.

Discussion:

Explain increase in drop of hydrant pressure as compared to first evolution; and how this information is the key as to when two pumpers can be supplied from a single hydrant.

The four evolutions are repeated with No. 2 Company's pumper connected to the hydrant, supplying No. 1 Company's wagon; and No. 1 Company's pumper connected to No. 2 Company's pumper, supplying No. 2 Company's wagon (each company is provided experience in operating from both positions at the hydrant).

Summary:

1. Importance of accurate information from suction gauge as to static reading of hydrant, flowing pressure and delivery of water (gpm).
2. Correct interpretation of suction readings.
3. Need for knowledge on how to make different types of connections between pumper intakes.
4. Effect of capacity and pressure of hydrant on both pumpers.
5. Factors limiting operation of second pumper.

The following types of connections between pumpers were tested during drills.

a. 4½-inch gate with 15 feet of 4½-inch soft sleeve

b. 2½-inch gate with 15 feet of 4½-inch soft sleeve

c. 2½-inch gate, 25 feet of 3-inch hose and 15 feet of 4½-inch soft sleeve

d. 2½-inch gate, 9 feet of 2½-inch hose and 15 feet 4½-inch soft sleeve

The friction loss varied considerably with the different types of connections tested. Type "a" was the best with the lowest friction loss. Types "c" and "d" had the highest friction loss.

A wide variation of friction loss was noted with the different companies using types "b," "c" and "d." For example, with type "d" (2½-inch gate, 9 feet of 2½-inch hose, and 15 feet of 4½-inch soft sleeve) the variation was from 13 to 37 psi for an average of 600 gpm. This was due to the difference in the construction of apparatus, reducers and valves.

The friction loss in the pumpers connected to the hydrant averaged 6 psi for 600 gpm and 21 psi for 1200 gpm.

The drills also brought out the need for more information regarding the friction loss with different types of connections between pumpers at the higher flows. Eight types of connections were selected to give the department the desired information and the Training Division was directed to test these connections at flows of from 500 gpm to 1000 gpm inclusive. From these tests the accompanying table was developed. The table is self-explanatory with a heavy line indicating the limit of practical operation in this city.

The table figures clearly indicate that even short lengths of 2½-inch or 3-inch hose should be avoided between pumper intakes.

Conclusions and advantages

The use of two pumpers from one hydrant has many possibilities of great benefit to our department. However, to get the maximum benefit, and to give this type of service the greatest application, the friction loss between pumpers must be kept at a minimum. The importance of keeping this friction loss as low as possible cannot be overemphasized, since it is one of the main limiting factors governing the amount of water that can be supplied by the second pumper.

The dual pumper operation has several advantages in the fire ground operation of our department.

1. The conservation of pump pressure wasted in friction loss, due to long layouts. By grouping the pumpers closer to the fire ground area, the intake hose lines to the wagons are shorter. This increases the potential gpm and allows more efficient use of the pump pressure.

This conforms to our policy developed in recent years of dividing the pump load between the pumper and the wagon. In the initial attack on a fire, water is supplied through ¾-inch hose, or 1½-inch hose, preconnected to the wagon pipe and supplied from a 200-gallon tank. Water is supplied from the pumper through the 2½-inch hose line laid by the wagon as soon as connection to the hydrant has been made.

The 1½-inch hose lines are preconnected in four different lengths. This gives the companies the choice of a wide range in length, for the 1½-inch hose

Continued on page 784

COVER ILLUSTRATION

The nation's Capitol bears innate witness to interesting experiments conducted by the District of Columbia Fire Department, Chief Millard H. Sutton, to determine the effectiveness of dual pumper, or tandem pumping operations, the object being to reduce long hose layouts and thereby eliminate wasted pump energy.

The dual pumper operation from hydrant is explained to Mr. L. E. Duval, secretary to the D. C. Police and Fire Commissioner (running coat and helmet) by Battalion Chief C. Quick, Chief instructor. Observing operations are, from left to right (in white shirts): Fire Chief Sutton; Assistant Superintendent of Machinery H. B. McDonald; Fire Marshal R. C. Roberts and Battalion Chief W. H. Ronan.

The pumper at right in the illustration is connected to the single hydrant while the pumper at left is connected to the intake of the first pumper. Both units are delivering 600 gpm from wagon pipes connected directly to pumps, using 1½-inch tips. Cover and other illustrations courtesy of the District of Columbia Fire Department.

Unobstructed Vertical Arteries Plus Concealed Spaces Equal Total Loss

Only Outstanding Fire Control Operations Prevent Detroit Conflagration as 80-Year-Old Building Burns

By ROBERT E. LUBECK

Readers will find this treatment of the costly Sanders Building fire somewhat different from the average technical report of such incidents. Although written in narrative form, we believe the account loses none of its necessary factual details.

Its authenticity is assured by the fact that the author, Robert E. Lubeck, besides being a buff and student of fire fighting as well as professional writer (television and dramatic critic for the Detroit News), has the confidence of Detroit Fire Commissioner Paxton Mendelssohn and Fire Chief Edward Blohm, both of whom subscribe to his presentation.

The only liberties we have taken with Mr. Lubeck's text are the addition of certain pertinent data received from other authoritative sources since Mr. Lubeck submitted his account. We would welcome comments on this form of editorial treatment.

—THE EDITORS

AT 6:30 ON THE MILD spring evening of May 2, 1956, two words were spoken over the Detroit Fire Department's radio station KQA which had not been heard in nearly ten months' time.

They were words that firemen the world over respect and understand for their meaning of danger and havoc: *Fifth Alarm!*

Detroit's worst fire of the season, in fact the last two years from a spectacular viewpoint, began sometime around 6:00 p.m. in an out-of-the-way part of the second floor of the six-story Fred Sanders confectionery store in the heart of downtown Detroit.

At 6:14 p.m. at the dispatcher's office, central communications headquarters of the fire department, the direct-line telephone from the ADT alarm system jangled an alert. Little realizing the night that was to come, the dispatcher took the message, *an ADT water alarm at the Sanders Co., 1037 Woodward.*

Without hesitation, because the 80-year-old brick and frame building has long been a familiar landmark, the dispatcher turned to an assistant and said *Roll Box 15.* Then he spun the huge wheel-like file of the city's more than 9,000 fire alarm box locations and stopped it at Box 15, Woodward and Michigan. It told him the responding companies.

Moments passed. Another call of a minor fire came in and the dispatcher sent other companies on the way to its location on the far east side.

In the rush-hour traffic of downtown Detroit, however, Engine Companies 1, 3 and 8; Ladder Companies 1 and 3; Squads 1 and 2; Chief Henry Deburie of the 1st Battalion and Assistant Chief Robert P. Lane were already on their way to Box 15 with sirens screaming and red lights flashing. The dispatcher flicked the two-way radio switch.

Box Alarm, he said slowly and distinctly. *Box 15. Woodward and Michigan. An ADT alarm at the Sanders Confectionery Store, 1037 Woodward. 202 are you on on the way?*

202, the code signal for the assistant

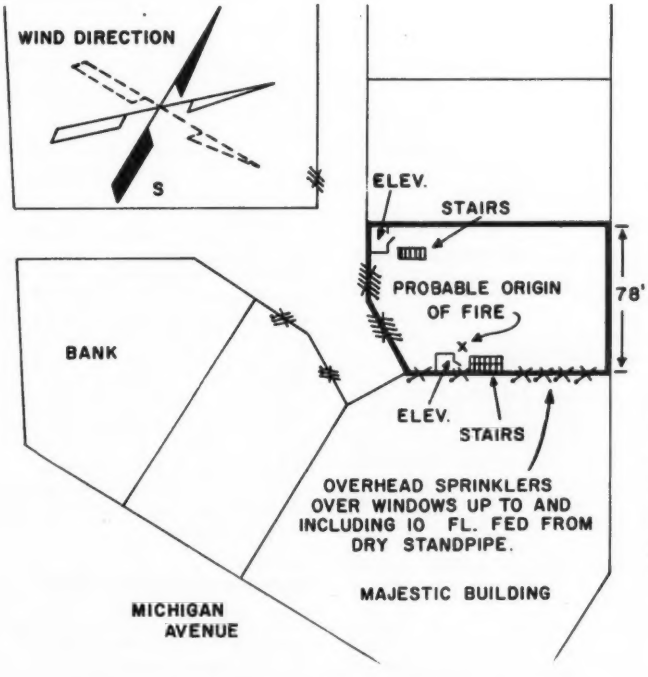


Diagram showing layout of Sanders Building and adjoining exposures. Fire started at point about "X" and extended upward through stairways

Left: A study in aerial ladder operations. Action on Woodward Avenue front showing use of three aerials as water towers. Note center ladder has intermediary ladder pipe in use. Better than 10,000 gallons per minute drove back the fire in the Sanders Building. **Right:** Rear attack on the Sanders fire. Aerials and fire escapes are used to bring streams to bear on blaze and effectively protect exposures

chief, acknowledged. All companies were on the way.

A moment later came a radio report from the officer in charge of Engine 1, the first arriving company. *We're at the fire,* he said in a voice that gave a hint of the scene that met his eyes.

Seconds later a new message. It was from an aide to Assistant Chief Lane.

Second and third floors fully involved, he shouted into the radiophone, *Working all companies.*

Multiples come rapidly

At his home on Detroit's north side, Fire Commissioner Paxton Mendelssohn, veteran fire official, listened as the news came over his fire radio. He went to his direct-line phone.

Did I hear right? he asked the dispatcher, *Working all companies?*

That's right, Commissioner, the dispatcher said. Then he paused, *I can't give you more information right now. A second alarm is coming in.*

The time was 6:21, seven minutes after the original alarm, when Chief Lane's aide radioed in words of mounting tension, *Give me a second on Box No. 15.* Engine Companies 9, 6 and 11; Ladder Company 20, along with Deputy Chief Edmund de Caussion and the department's multiple-alarm special-service equipment, began to roll.

Two minutes later a third alarm was ordered, bringing Engine Companies 5, 13 and 17; Ladder Company 5 and the Chief of Department; Edward J. Blohm.

Five minutes later a fourth alarm was sounded, with Engine Companies 10, 7 and 27; Ladder Company 10 and Squad 3 responding.

At 6:30 p.m., Assistant Chief Lane, his voice weary, picked up the radiophone. *I'll take a Fifth Alarm,* he said. And Engine Companies 22, 31 and 41 screamed out of their fire houses, to be followed some 14 minutes later by even more equipment ordered to the scene by Chief Blohm. These included Hose Company 1, Engines 4 and 18 and Squad 4.

The tension mounted with the flames out of control, as the reinforcements rolled in. The battle was joined.

To better understand the struggle it is advisable to know something about the building involved.

Building an invitation to fire

The Sanders Building, as it was known from 1901 when Fred Sanders leased it, was erected about 80 years ago. It was of six stories and basement of ordinary joist construction.

The floors were wood on 3- by 12-inch wood joists, on 16-inch centers, sheathed on the lower side with wood lath and plaster on ¾-inch matched lumber and supported by 12- by 12-inch wood beams, on about 17-foot centers and 12- by 12-inch wood columns, except on the basement, first and second floors, where the columns were of iron.

Sanders occupied the entire basement, about two-thirds of the first floor and the entire sixth floor. Eaton's, Inc., ready-to-wear shop, subleased about 35 per cent of the first floor and the entire second and fourth floors. The Eaton Beauty Salon occupied the fifth floor. The third floor was vacant.

There were two elevators in the building, one located near the north wall in the rear (see diagram) which served Eaton's and the beauty salon. The other, located at the south wall, served Sanders. This had openings only at the basement, first and sixth floor levels and was used principally for moving stock. There was an open stairway from the first to the second floor near the north wall of Eaton's and an open stairway at the south wall on the Sanders side leading from the second to the sixth floors.

The entire building was protected by an ADT Central Station automatic fire alarm system, installed about 1951.

Origin and cause undetermined

Although the evidence points to an electrical fire, starting in or near the Sanders elevator shaft, in some concealed

space between the second and third floors, the exact origin cannot be determined. It is certain however, that the fire once under way, spread with great speed.

The Eaton store and beauty salon closed for the day between 5:30 p.m. and 6:00 p.m. The Sanders ground floor and basement store remained open. After bringing down salon employees from the fifth floor about 5:45 p.m. the Eaton elevator operator returned to the third floor to turn off a rear light, it is said, but saw no evidence of fire. At 6:12 p.m. the Eaton manager, last to leave the store, also noticed nothing unusual.

At about this time the operator of the Sanders' elevator, which had been out of service due to electrical trouble earlier in the afternoon, and had just been restored to service, was descending with the elevator service man from the sixth to the first floor. As the cage approached the second floor the men detected the odor of smoke, although the shaft was sealed off on that floor. When they reached the first floor they saw smoke in the shaft above them. It was quite evident there was a fire.

Before these men had opportunity to turn in an alarm, the automatic system had transmitted notification to fire headquarters. At about the same time, a forelady of Sanders also convinced that there was a fire, telephoned the department, to be told that the alarm had already been received over the supervisory system.

Fire fighters forced out

In keeping with the tradition to "locate, confine and extinguish" the fire, the first hose lines were taken into the Sanders Building and up the north stairway at the rear of the second floor, in the face of steadily mounting heat and heavy smoke. Firemen also went up the rear fire escape and one of them, entering through a rear second floor door from the fire escape saw flames near the south stairway. These and other fire fighters were forced to back out of the structure and from that time, with the exception of brief periods when men attempted interior surveys, all fire fighting was done from the outside. These operations devoted increasing attention to protecting the north exposure, the 7-story building housing Grayson's Inc., clothing store, and the 14-story Majestic office building on the south. In this they were aided by a stout unbroken fire wall of the Grayson Building, and an outside sprinkler water curtain operated on a dry pipe system of the Majestic Building. Two fire department pumpers were given the task of feeding this system, which some authorities credit with preventing involvement of the office building.

A striking feature of the defense was the utilization of five metal aerial ladders as water towers, three at the front on Woodward Avenue, and two at the rear. Two turret and numerous hand lines also added their powerful discharge to the niagara that eventually swamped the fire. Three hand lines shot streams into

Continued on page 790

New York State Legislation Recognizes the Importance of Volunteer Firemen

By CHARLES W. POTTER

Counsel, New York State Joint Legislative Committee on Fire Laws

THROUGHOUT THE YEARS the New York State Legislature has recognized the importance of the volunteer fire service. For the purpose of the discussion of recent legislative developments affecting volunteer firemen, however, we could well start with the law which created the New York State Division of Safety.

On March 11, 1946, former Governor Thomas E. Dewey sent a special message to the Legislature recommending the creation of a Division of Safety in the Executive Department which would foster local fire prevention and control. The legislation (L. 1946, c. 836) which was enacted upon the Governor's recommendation, also provided for a state fire advisory board to serve without compensation in the formulation of the policies and programs of the Bureau of Fire Mobilization and Control in the new Division. By Chapter 834 of the Laws of 1946, the Legislature provided for a state fire mobilization and mutual aid plan under which fire mobilization and mutual aid zones could be established, each with a regional fire administrator.

Under the leadership of Thomas W. Ryan, former Director of Safety and B. Richter Townsend, former Chief of the Bureau of Fire Mobilization and Control, county fire mutual aid plans were quickly established on a practical working basis in all of the 57 counties outside New York City. County fire advisory boards and county fire coordinators were appointed on a somewhat informal basis in those counties. County fire instructors were employed and for the first time in the history of this state, not only were modern fire fighting techniques taught on a state-wide basis, but the instruction was uniform. This training has been of untold value in mutual aid fire operations. The vital importance of the Bureau of Fire Mobilization and Control to the volunteer fire service is obvious when it is considered that the 57 counties outside New York City have a population of 6,938,235 served by 110,363 volunteer firemen and 4,877 paid firemen.*

The expansion of the field of operation of the volunteer fire service was stimulated by the Bureau of Fire Mobilization and Control and also by the acquisition of hundreds of modern, high speed, long range fire fighting vehicles and the installation of fire radio. Increases in population, especially in areas adjacent to cities and villages, led to the creation of new volunteer fire departments. The fire service has done its part in civil defense training and in natural disaster work and it has been called into other new fields of activity such as school fire safety inspections.

Mutual aid legislation

These developments which occurred in the post-war period required changes in our laws affecting the fire service. County fire mutual aid plans were authorized on a legal basis by L. 1949, c. 250; county fire advisory boards and county fire coordinators were authorized by L. 1950, c. 711. Sweeping changes in the law relating to outside fire service were made by L. 1950, c. 710. The Defense Emergency Act of 1951 provided for the use of the fire service for civil defense purposes.

The Legislature has long recognized that the risking of life and limb by volunteer firemen merits a system of financial benefits when such firemen are killed or injured in line of duty. The present system started with a $500 death benefit to the estate of a volunteer fireman of a fire district or village (L. 1895, c. 615). The benefits were substantially increased over the years and were provided for in Section 205 of the General Municipal Law. In 1935, additional benefits were provided on a *permissive* basis under Section 10 of the Workmen's Compensation Law. By Chapter 794 of the Laws of 1947 the extra Workmen's Compensation

Continued on page 762

**Population based on 1950 census; fire service figures based on October 1, 1953 records of the Division of Safety.*

OVERHAUL AND SALVAGE . . . IN THEORY AND PRACTICE

By
ROI B. WOOLLEY

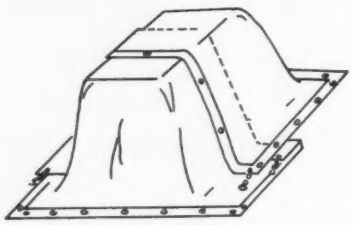


FIGURE 1

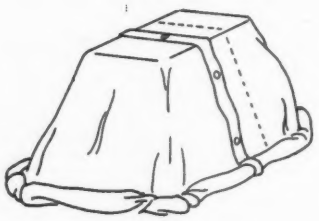


FIGURE 2

PART XVI

Splicing Covers and Sealing Overlap . . . Constructing Catchalls and Basins

UNDER CERTAIN CONDITIONS it may be necessary to use several salvage covers to protect large areas of floor space or extensive piles of stock. Where this is done, some means of sealing the edges of covers where they overlap must be employed, to prevent water from working its way underneath the covers and thereby possibly impairing the salvage effort.

Usually, overlapping the covers a distance of one or two feet will provide sufficient protection for a pile of material, but if the water is cascading with considerable force it may be necessary to splice or fasten the covers together by one of the methods described herein.

If a stack of material is of sufficient size to necessitate two covers, a convenient method is shown in Fig. 1. In this operation, the first cover is thrown over the stack and the edge near the center of the stack is folded back a distance of about one foot. The second

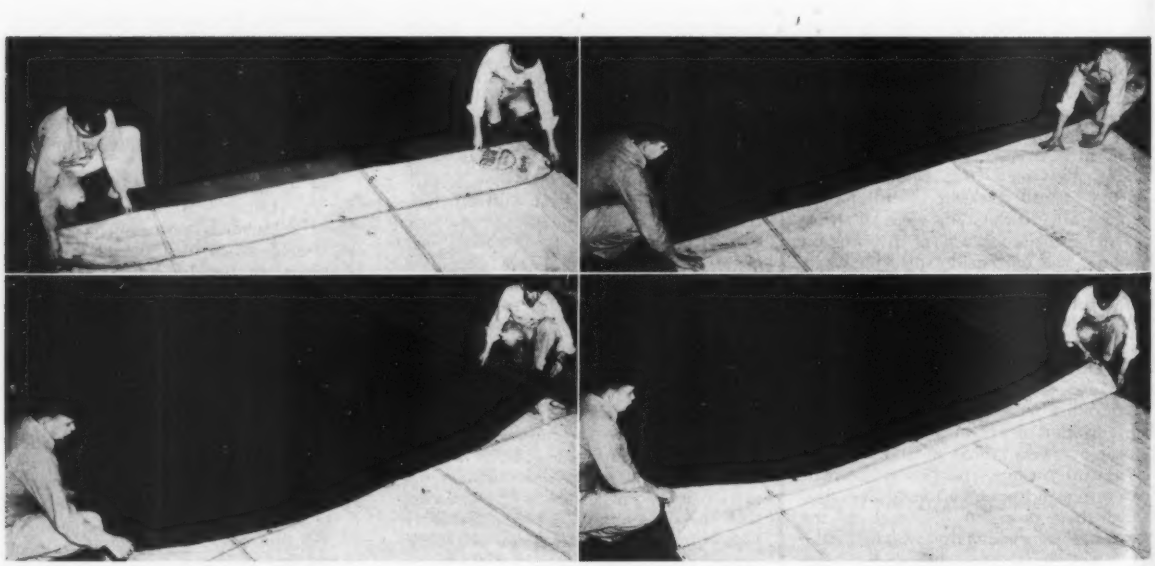


FIGURE 4 (top left); FIGURE 5 (bottom left)

FIGURE 6 (bottom right); FIGURE 7 (top right)

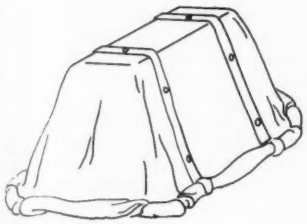


FIGURE 3

cover is then laid over the stack, lapping the first cover slightly and the edges are then rolled up to the material (Fig. 2).

Under normal conditions, this method will sufficiently seal the splice to prevent water seepage. Where the stack is of such size as to call for three covers, the same procedure is followed, with the covers on each end folded back and the third cover overlapping both on each edge. The edges of all three covers are then folded in to secure or seal the overlap (Fig. 3).

If water under considerable pressure is encountered, or an extensive floor area must be protected, a folded or rolled edge splice can be used effectively. Both methods use similar steps for preparation. The first cover is folded back about two feet from the edge to be spliced (Fig. 4). The second cover is slid over the folded edge of the first until the edges are even (Fig. 5). Both edges are then folded back about one foot (Fig. 6) and the splice is locked by folding back the remaining distance by adding additional covers on the sides or ends, depending on the layout of the area to be covered.

A "roll splice" is made by following the steps shown in Figs. 4 and 5, and then rolling both edges up in a tight single coil, as shown in Fig. 8.

Catchalls or basins

Catchalls or basins are used to impound water dripping or leaking from above where it is impossible to route the water out of the building by any means. They are also useful as a drainage basin into which wet salvageable material may be thrown to prevent further damage. They are generally improvised on the spot from the material available, or they may be constructed with short ladders and covers much in the same fashion as a suction basin would be prepared.

Water may be removed from a catchall by bailing with buckets (Fig. 9), siphoning, or by means of wooden scoop shovels. If metal scoops are used, it is necessary to use care to prevent tearing or ripping the cover.

A simple catchall can be prepared by

FIGURE 8

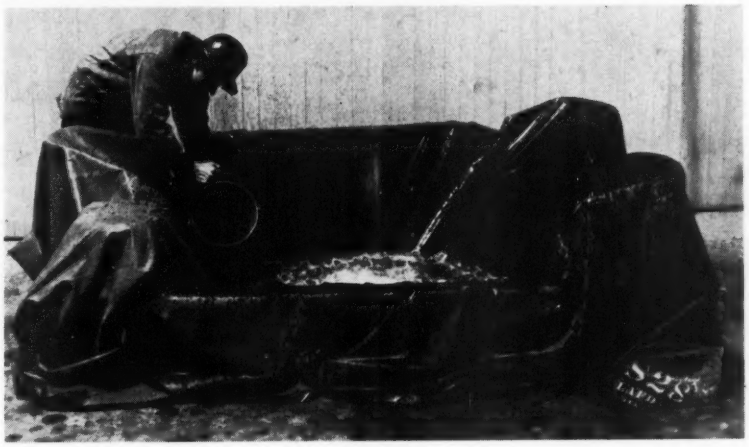


FIGURE 9

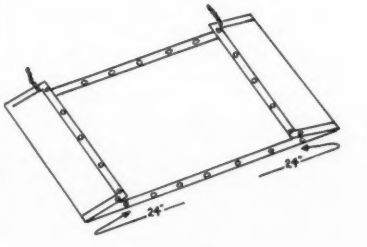


FIGURE 10

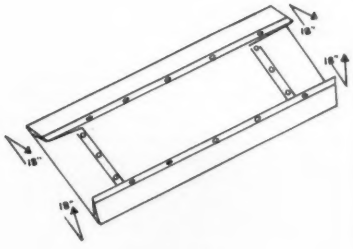


FIGURE 11

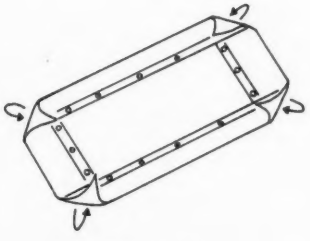


FIGURE 12

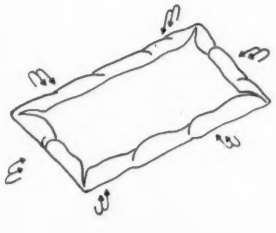


FIGURE 13

FIGURE 14 (top); **FIGURE 15** (bottom)

laying a cover flat and folding the ends in about 24 inches (Fig. 10). The edges are then folded in about 18 inches (Fig. 11), and all four corners are then turned in until the tips of the corners reach the intersection of the edges of the folded cover (Fig. 12). Two narrow folds are then made on each edge to complete the catchall, or the edges can be rolled up as in Fig. 13. In making all the folds of the catchall, the edges should not be creased or patted down flat. Some of the steps just outlined incorporate a method of preparing covers known by salvagemen as "bagging."

Another method of making a simple catchall is to fold all edges of the cover in about two feet; sawdust is then banked up around the entire cover forming a dike several inches in height after which the edges are unfolded over the sawdust banks. As long as the edges are kept elevated, the cover will hold a considerable amount of water.

A method of making a large catchall is shown in Fig. 14. Chairs or any suitable material are arranged to form a hollow square or a circle. The cover is then spread over the supporting material and tucked down to form the basin (Fig. 15). If considerable water must be handled, some salvagemen use two covers for greater strength.

Where the use of catchalls or basins is indicated, efforts should be made to locate them where they will offer the least obstruction to movement in the area; also, so that if necessary to handle overflow it may be bagged and directed to most convenient and safest exit. □□

Acknowledgment: *The author gratefully acknowledges the cooperation of the Los Angeles Fire Department, William Miller, Chief; the New York Division of Safety, M. H. Prendergast, Director, and the Washington, D. C. Fire Department, Millard H. Sutton, Chief, in permitting the use of photographs and data used in this installment. Figures 1, 2, 3, 10, 11, 12, 13 are Washington photos; Figures 4, 5, 6, 7, 14, and 15 are from the N. Y. State Division of Safety, and Figures 8 and 9 are from the L. A. Fire Department.*

Disaster Averted at Million Dollar High School Fire

A fire which went undiscovered in a Pomona, Cal., high school despite the presence of 1385 students and 56 teachers, caused damages estimated in excess of $1,000,000.

Thanks to the school's fire alarm system and frequent fire drills, the building was cleared in an orderly manner with no casualties although the blaze was completely out of control when the first units of the Pomona Fire Department arrived.

Chief Robert Crawford said the blaze on May 19th apparently started in a main floor girls' restroom and traveled up through partitions before eating its way into a concealed area unprotected either by fire stops or sprinklers above the third floor center section of the antiquated building.

Chief Crawford said that upon his arrival six minutes after the alarm was turned in, he went to the music room on the third floor, put on a gas mask and found a trap door leading to the attic.

"I got about waist high in the attic when my mask started heating up and I got out," said the chief. Further hints that the blaze had spread to the attic by the time the first alarm was sounded at 1:24 p.m., came from teachers who said they noticed a considerable temperature rise in classrooms near the source of the fire as much as an hour before the fire was discovered.

Chief Crawford said heat and smoke made it impossible for his men to enter the attic, a space of about four or five feet between the ceiling and the roof.

Although the origin of the fire suggests the possibility of a student or teacher sneaking a cigarette, no official cause has been given by investigators.

Whatever the cause, weather conditions were ripe for a major outbreak. Relative humidity in the Southern California city was down to 17 per cent at 1 p.m., shortly before the fire started. A fire hazard is considered to exist when the humidity dips below 30 per cent.

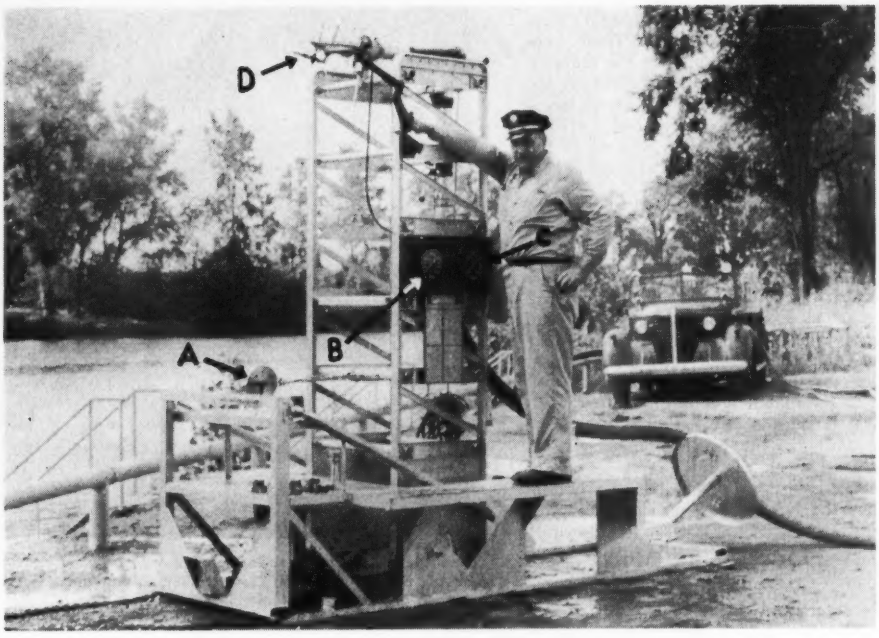
Assistant Chief Harry Williamson radioed the second alarm immediately upon his arrival. Subsequent calls went out for all of Pomona's 68 firemen and additional manpower and apparatus responded from La Verne, Claremont, Chino, Ontario and Los Angeles County Fire Departments.

L. A. County aerial assists

Chief Crawford credited the arrival of a Los Angeles County aerial ladder and its five-man crew from East Los Angeles —a 36-minute run—with turning the tide of battle. He said the additional aerial power saved both the east and west wings of the school when their destruction seemed imminent.

The students were alerted during their fifth period classes by what they thought was a routine fire drill. After leaving the building, some of the students returned to fight the flames with interior standpipe lines until Pomona firemen arrived. The building was emptied within two minutes

Continued on page 791



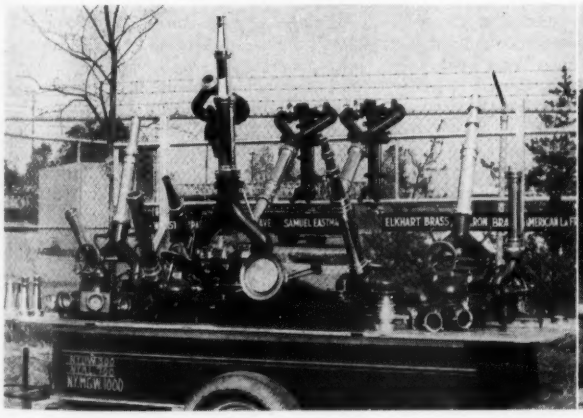
—*Photo by Hugh Walker*
The test device with its originator, Deputy Chief Louis Vogt. The section of metal ladder is pivoted at bottom to permit recoil of frame under stream pressure from nozzle registering on dynamometer (A). Gauges (B) and (C) register pressures at nozzle and barrel intake, providing comparative friction losses in the stream appliances. The "dentist's arm" (D) holds pitot which records discharge of straight streams. Conversion charts below gauges permit rapid calculations. Streams are being directed out over the Genessee River

Tests on Master Stream Nozzle Recoil and Reaction Prove Resultful

WHAT IS BELIEVED TO BE the first comprehensive field engineering tests of the relative reaction of various size heavy duty fire streams made in this country was undertaken the week of July 22, in Rochester, N. Y.

The tests were conducted under the direction of Deputy Chief in Charge Louis E. Vogt, Division of Apparatus, Rochester Fire Bureau, Chairman of the Sub-Committee on Master Streams of the NFPA-IAFC Committee on Fire Department Equipment, of which Chief Henry Thomas of the Hartford, Conn., Fire Department is Chairman. Present were many figures prominent in the fire service, including Fire Commissioner Kenneth C. Townson and Fire Chief Walter J. Adams and other top officials of the Rochester Fire Bureau, who placed all the facilities of the Bureau, including the modern shops of the Division of Apparatus and the vast Fire College Training Ground at the disposal of the Committee.

Manufacturers cooperating in the tests were: Samuel Eastman Company, Akron Brass Company, American LaFrance Corporation, Wooster Brass Company and Elkhart Brass Manufacturing Company. Nozzles used in the tests varied from



Rochester Fire Bureau trailer mounting the various manufacturers' ladder pipes and master stream appliances, used in the field tests. Trailer was designed by Chief Vogt —*Photo by Hugh Walker*

Deputy Chief Louis Vogt calls off reading on nozzle pitot gauge to Robert Byrus while (in rear, left to right) John Barman, Boyd Hartley and Warren Kimball watch reactions—*Photo by Rochester Fire Bureau*

1¼-inch to 2-inch both straight play-pipes and multi-use nozzles. These were mounted on ladder pipes of the different makes, as well as on master stream appliances. Included in the tests were large-volume fog nozzles produced by each company, ranging all the way up to the latest 2500 gpm fog-and-straight-stream newcomer.

Results of the tests will be released later by the Committee on Fire Department Equipment after engineers have completed compiling and analyzing the findings. It is hoped that the resulting data will prove advantageous to the fire service in making available definite performance knowledge for all types and sizes of master stream nozzles, as well as to the manufacturers themselves.

Mechanics of the study involved the mounting of the stream appliance (nozzle, barrel and fittings) on a section of metal ladder so pivoted at the bottom that the stream and nozzle back pressures could be recorded on a dynamometer, while pressures both at the nozzle tip and at the intake of the barrel could be read from gauges on the framework. This testing device was devised by Chief Vogt and built in the Fire Bureau's shops.

By this means it was possible to secure fairly accurate comparative figures on recoil, or nozzle reaction, at various nozzle pressures. For the majority of the tests, two regulation Rochester Fire Bureau pumpers were used. Two additional pumpers were added for the full-scale stream experiments. It was also possible to gauge the comparative range of streams and their other characteristics by use of photographs, etc.

"Operation Woodpecker" an eye opener

Evidence that should settle the much mooted question of the amount of recoil developed when a stream suddenly strikes a solid object, was turned up by experiments jocularly termed "Operation Woodpecker."

In order to find a conclusive answer to this question, the mechanical recoil test device was brought within range of a large tree and a stream from a 1½-inch nozzle at 115 psi was swung against the tree while accurate reaction readings were noted on the dynamometer. At 16 feet, 6 inches the dynamometer registered no reaction between a free stream and when it struck the tree. At 70 inches the same nozzle at the same pressures showed no trace of recoil. There was no more reaction when the stream was directed against the tree for some moments, than when it was only suddenly thrown on and off it.

Assisting Chief Vogt in the tests were Lieutenant Ernie Starr, Rochester Fire Bureau; Boyd Hartley, Engineer, National Board of Fire Underwriters; Robert Byrus, Director, Fire Service Extension, University of Maryland; John Barman, Engineer, Missouri Inspection Bureau; James Rogers, Director of Training, Nassau County, N. Y.; Warren Kimball, Manager Field Services, National Fire Protection Association, and Roi B. Woolley, Editor, FIRE ENGINEERING. □□

Asphalt works and roofing plants are not good risks—so say the Underwriters—as witnessed by this $750,000 Cleveland blaze that drove out 100 workers and took over 100 fire fighters and 20 pieces of equipment to control it

Not considered desirable insurance . . .

Cleveland Asphalt Plant Makes Hot and Costly Fire

THE GIBSON-HOMANS COMPANY, a three-story brick, manufacturing plant at 2366 Woodhill Road, Cleveland, Ohio, which produced asphalt roofing materials and tar caulking compounds, was the scene of near-death and destruction recently as fire and explosions completely wrecked the structure.

The fire apparently started at the top of two large mixing vats containing asphaltic compounds. These vats extended from the mezzanine to the third floor level and at that top elevation sparks from a generator ignited the fluids.

The alarm was received at 11:18 a.m. by the Cleveland Fire Alarm Office via the ADT system, which triggered the warning.

The first fire fighters on the scene (Engine Companies 10 and 29 Ladder 8) found a large section of the third floor of the plant in flames and Battalion Chief James Mitchell, of the Eighth Battalion, who arrived with them, made an immediate second alarm by radio at 11:20 a.m. while his car rolled to a stop. The volume of smoke and the involvement of the top floor by fire quickly made the danger apparent.

Responding on this second alarm were Rescue Squad 3; First Assistant Chief James E. Nimmo, who took charge of operations; Superintendent of Equipment Edward Deucher; two arson squad mobile units; the head of the Fire Prevention Bureau; the department photographer; a gas truck and Engine Companies 26 and 34 and Ladder 6.

On the second alarm, in this case a 2-2-2, which is Cleveland's second alarm with a third alarm ladder truck, the units and individuals mentioned above are automatically notified.

Assistant Chief Nimmo, after a sizeup which indicated the increasing involvement of the asphalt plant and the threat to exposures, sent in a third alarm at 11:30 a.m. This brought Engines 9 and 35, the chief of the Fourth Battalion, the department's huge new communications and control truck, the department chaplains, and ranking police officers and crews to handle the growing crowd of spectators.

On the third alarm the communications truck responds. This is equipped with portable and mobile fire radio, police radio sets, and radio in direct contact with seven other emergency frequencies. Also there are searchlights and loud

speakers. The Fire Alarm Club, the city's new and highly regarded buffs organization, is also notified by the fire exchange.

The layout of the burning plant and the exposures, together with the heavy volume of black smoke which at times obscured parts of the burning building and threatened structures, made it difficult for fire fighting crews and their officers to keep in touch with command. This situation was alleviated somewhat by judicious use of portable radios with which the senior chiefs and aides were equipped.

At 11:48 a.m. from one of these portable units boomed the message *By orders of Car 165* (Chief Nimmo) *the fire is out of control—make a fifty-five,* the local term for a fifth alarm.

Coming in on the fifth were Engines 7, 22, 17, 41 and Ladder 3; the chief of the Sixth Battalion; and from city hall, Safety Director McCormick and Mayor Celebrezze, with Fire Chief Elmer Cain and Police Chief Frank Story.

Firemen repeatedly routed

While these events were transpiring, the blaze was gathering more and more momentum, being fed by exploding tar and the contents of oil vats situated throughout the building. Sections of the roof began to fall through and the floors crumbled, spraying blazing oil in all directions.

Interior fire fighting was impossible but firemen advanced to close range to bring streams to bear upon the blaze, only to be driven back again and again. At one time the retreat was so precipitate that ladders had to be abandoned against the side of the plant. In this retreating section four men nearly met disaster. Fourth Battalion Chief Edward Tuhacek, Captain Gerald Finn and two firemen were operating a line on the second floor, when without warning a vat of exploding tar oil was thrown into their room, cutting off their escape. They had to smash their way through a small window and drop to the ground head first. They were quickly rushed by Rescue 3 to St. Luke's Hospital. Fortunately, all received only minor injuries.

The flames roared unchecked through the structure and shot hundreds of feet into the air through the roof, sweeping toward three extremely vulnerable exposures. These were the unsheltered Pressler Lumber Co. diagonally across the street from the burning plant; six tanks containing 90,000 gallons of tar oil above ground and 45,000 gallons below ground; the three-story Colonial Chemical and Refining Co. plant, engaged in the manufacture of similar tar products.

These exposures constituted a severe threat and Cleveland fire fighters were quick to recognize it and provide accordingly. The full sequence of multiple alarms having been sounded (fifth alarm), a special alarm was ordered at 12:24 p.m. calling five additional companies. These were Engines 18, 19, 13, 3 and 14. They were assigned the task of covering the exposures to contain the fire, if at all possible. Special attention was given the ground tanks and their flammable contents.

After two and one-half hours of gruelling effort the fire was under control, but not until many of the working crews were well coated with asphalt, tar and soot.

An ironic note of the incident was the fact that on the third corner where the fire raged out of control, across from the lumber company, is located Cleveland's huge Baldwin Reservoir containing millions of gallons of water for the city's needs. This supply was not tapped, although it could have been had the hydrant supply failed.

The fire demonstrated the value of training factory workers in firemanship and exit drill. Their training caused the 100 plant workers to march from the burning building in orderly fashion, many of them believing they were only participating in a routine exercise.

Members of the Fire Alarm Club of Cleveland procured and served hot coffee to the fire personnel. They were supplemented by the American Red Cross which brought further refreshments. The buffs also served refreshments to the nine companies that remained on duty throughout the night.

Property loss was reported estimated at $750,000. □□

The editors acknowledge the assistance of J. J. Sords, president of the Cleveland Fire Alarm Club and Robert E. Taylor, Editor of "Farm Spokesman," Cleveland, Ohio.

—Photo by J. J. Sords

Cleveland firemen scramble to safety as part of wall of Gibson-Homans asphalt plant blows out and flames boil high through the roof. Succeeding blasts, scorching heat and heavy smoke necessitated outside fire fighting.

—Photo by J. J. Sords

Explosion blasts through roof and upper right corner of burning asphalt plant as fire fighters concentrate on protecting tanks holding 135,000 gallons of asphalt oil, left foreground

short cuts and gadgets

Marking the Route to the Fire

Robert C. Burgess of Canaseraga, N. Y., suggests a novel method of indicating the route taken by a fire truck for the guidance of volunteers who may be following the rig in their cars. As Mr. Burgess puts it, "Sometimes when responding to an alarm, we come to a fork in the road and the delay caused by taking a wrong turn may have serious results." Here is his prescription:

Take an ordinary wax paper sandwich bag and put about an ounce of Prang powdered Tempra in it. Fold to form a two-inch square and staple the ends. A supply of these packets can be carried in the glove compartment of the truck and one thrown to the pavement or road just after a turn is made. The splash of color on the highway gives immediate identification of the route. Tempra is a show-card paint concentrate available in any art store in a variety of colors.

Salvage Short Cut—Improvised Chute

It's nice to know our readers are enjoying the series of installments on "Overhaul and Salvage" currently appearing in this journal. But it's even nicer to have them come up with suggestions that will make salvage more efficient.

Fire Chief Alfred Linde, of Watertown, Wisconsin, writes about a salvage short cut developed by his department as follows:

"In the March issue of FIRE ENGINEERING, the chapter dealing with *Overhaul and Salvage in Theory and Practice* is very educational:

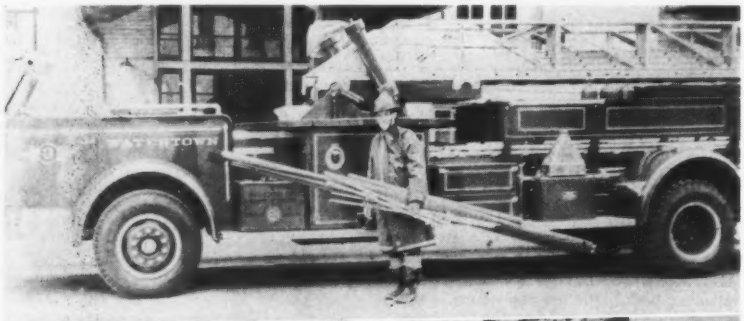
I would like to tell you about a chute that we devised. We used a Vinyl-coated fabric of thin material which we found to be much lighter in weight and more durable than canvas or tarpaulins. These chutes are made in 10 and 6-foot lengths, with overlaps on the end so that they can be fitted into one another.

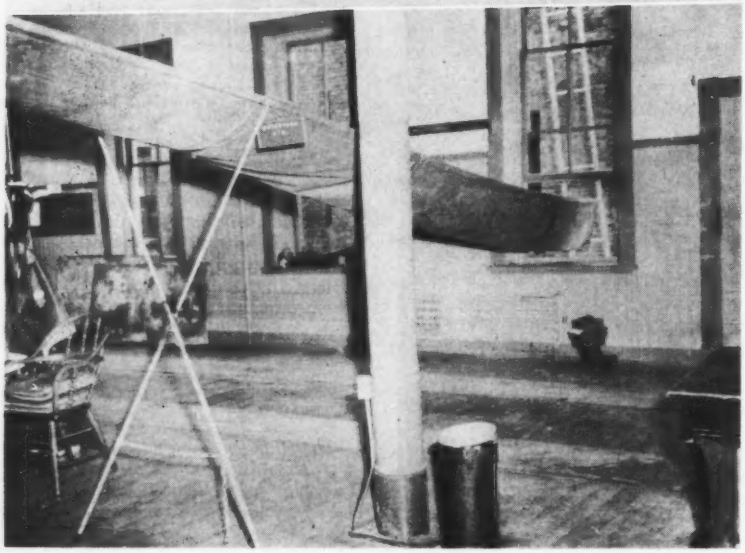
We used 1-inch steel tubing arranged so that they can slide into one another. On the ends of one chute we welded pikes that can be driven into the wall.

These chutes are rolled up and carried on the apparatus, ready for use. They can be put into service very quickly by one man. They eliminate the necessity of having to roll tarps' with pike poles, which practice we found very unhandy.

Our chutes are 3 feet, 6 inches wide.

Thank you Chief Linde!





Hose Loop For Catching Hydrants

Fireman Donald Gnos developed this effective method of laying hydrant lines for the San Bruno, Cal., Fire Department. The hose load is finished with a loop at the end secured by a leather strap. To stretch in, the loop is dropped over the hydrant and the apparatus proceeds to the scene. The strap also holds a spanner wrench.

Badge of the Neophyte

Industrial idea—Crucible Steel Co.'s Midland Pa. Works requires that all new employees wear a white arm-band for 30 days. Inasmuch as it's the beginner who gets into accidents more easily, this identifies them and brings them extra help and safety attention from other workers. The plant fire chief could also make sure that the "marked ones" are made familiar with the fire regulations and practices.—***Occupational Hazards.***

Membership Application for Volunteers

In an effort to obtain new members who will be active fire fighters, the Lyons, N. Y., Fire Department has adopted a new membership application blank.

When an applicant fills out the form he states his willingness to attend fires, business meetings and practice drills. Plainly indicated on the form are the various fines levied for failure to live up to the agreement, and the causes for dismissal.

Chief John F. Stephan has hopes that the new form will discourage those persons who join a department for the social benefits only.

"Our Department has used EUREKA Multiple-Woven for 35 Years!"

That's the report of one Fire Chief*, who goes on to explain, "It was a simple case of economics. We had to *stretch* our hose dollars. And our experience had proved that the *best* hose was actually most economical in the long run.

"The way I figure, it would have cost us at least 50% more to keep the department in short-lived, minimum-priced, 'approved' hose. And we wouldn't have enjoyed the feeling of greater safety and confidence that we get from Eureka Multiple-Woven Hose. Believe me, that's worth a *lot* when lives and property are at stake!"

Eureka Multiple-Woven is the unique fire hose in which *all plies* are circular woven *simultaneously* into one homogeneous jacket. There just isn't any space between plies to harbor water or dirt. That's why it stays serviceable, safe and dependable so much longer! Let the Eureka man tell you why your department or volunteer company can *save* by standardizing on *the best!* And you'll have the added satisfaction of dealing with a fire hose specialist!

*Name on request.

Note how criss-crossing vertical cords tie all plies into one solid body.

EUREKA

"For greater protection to life and property"

EUREKA FIRE HOSE

Since 1875, Specialists in Manufacturing Circular-Woven Rubber-Lined Fire Hose

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WHAT'S NEW

Among the Manufacturers

- products
- processes
- personalities

James T. Dunleavy Heads Pyrene C-O-Two Company

The Pyrene C-O-Two Corporation of Newark, N. J., recently acquired by The Fyr-Fyter Company of Dayton, Ohio, will be headed by James J. Dunleavy, vice president and general manager of Fyr-Fyter's Wooster Brass Division for the past four years, according to announcement made by William M. Wetzel, chairman of the board of Fyr-Fyter.

The Pyrene C-O-Two Corporation, he also announced will henceforth be operated as the Pyrene C-O-Two Portable Division and the C-O-Two Systems Division of The Fyr-Fyter Co.

Mr. Dunleavy has served Mr. Wetzel in an administrative capacity for the past thirty years.

Assisting Mr. Dunleavy at Fyr-Fyter's Newark operations is Charles S. Duncan, vice president and assistant general sales manager.

William E. Tromanhauser, who formerly served as president of the Buffalo Fire Appliance Corporation, will be vice president and sales manager of the new Pyrene C-O-Two Portable Division.

The new C-O-Two Systems Division will be headed by C. T. DuBreuil, who had served as assistant vice president and chief engineer of Fyr-Fyter's Wooster Brass Division.

Sales manager for the C-O-Two Systems Division will be Burr Williamson who joined Pyrene C-O-Two in 1948.

Vice president and chief engineer for both the Pyrene C-O-Two Portable Fire Extinguisher Division and the C-O-Two Systems Division will be Frank B. Allen, who joined Pyrene C-O-Two in that same capacity in 1935.

Ralph F. Batch who has also been associated with Pyrene C-O-Two for a number of years, has been named vice president in charge of production for both of the new divisions at Newark.

Hale Relief Valve Instructions

Two bulletins are available for fire chiefs, master mechanics and training officers on the operation of the Hale type QL relief valves. Bulletin No. 352 gives a complete description of the operating principles of the valve with cut-away drawings for easy explanation. The "Operating-Maintenance Manual and Replacement Parts List" contains suggestions for the care of the valve. Copies may be obtained by writing the Hale Fire Pump Co., Conshohocken, Pa.

Canby, Oregon, Purchases New Meteor Ambulance

The Canby, Ore., Volunteer Fire Department has just put into service this new Meteor ambulance with chassis by Cadillac. Members of the Ambulance Committee, left to right, Howard Giger, Alfred Kraft and Raymond Freece are shown displaying the ambulance in front of Canby's new fire station. Money to purchase the ambulance was raised by public donations. Everything in this ultra-modern ambulance is planned for maximum life-saving efficiency.

Pyrotronics Div. to Hold F. P. Week Demonstration

In observance of Fire Prevention Week, proclaimed by President Eisenhower for October 7-13, the Pyrotronics Division of Baker Industries, Inc., Newark, N. J., is offering to set up in-plant demonstrations of its new nuclear-powered Pyr-a-larm predetection and alarm system. The invitation, limited to locations on the eastern seaboard, is being extended in the company's advertising this month and by mail, according to Harold J. Burke, vice president and general manager.

Companies on the eastern seaboard that wish to set up a demonstration, Mr. Burke said, need only to contact him at Pyrotronics, Box 390, Newark 1, N. J.

Light, Portable Resuscitator

A light weight, low priced, portable resuscitator easily adjusted for infants as well as adults and simple to operate, has been developed by the Fyr-Fyter Company of Dayton, Ohio.

The unit uses the Seeler valve, developed by the Air Force. According to the manufacturer, this valve provides effective resuscitation, inhalation and aspiration. Positive and negative pressures can be simply controlled. The rate of breathing can be preset to accommodate new-born infants, or adults.

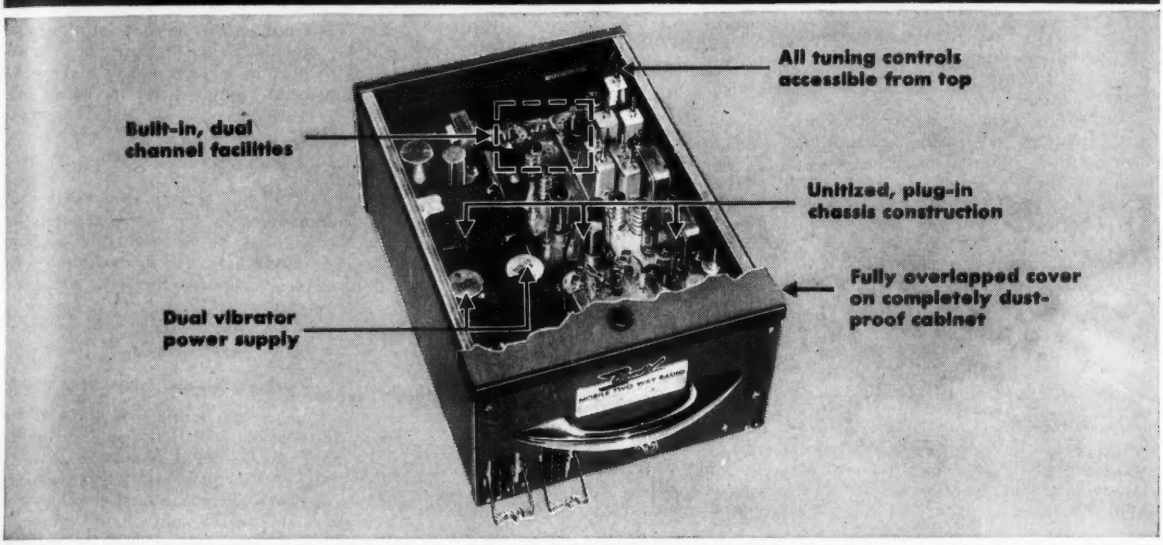
Packed in a compact aluminum case equipped with three contour face pieces to fit patients of any age, the unit weighs 30 pounds. The 18½ cubic-foot cylinder holds a generous supply of oxygen and an exterior chuck facilitates quick refilling of the oxygen cylinder. The unit may be modified for two-man operation. A demand inhalator can be supplied with the resuscitator. For complete details, address the manufacturer.

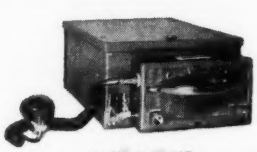
Eagle Signal Offers New Traffic Control System

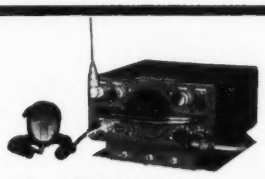
A new radio controlled emergency traffic control system offered by the Eagle Signal Corporation, Moline, Ill., automatically controls the traffic signal lights at the intersection ahead of an approaching emergency vehicle to provide safe passage for these speeding vehicles. It is known as the Natecs System.

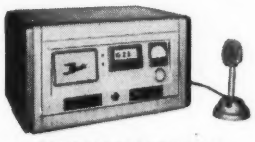
Continued on page 780

IT'S HERE! THE BIG ADVANCE IN 2-WAY RADIO FOR FIRE FIGHTING


All tuning controls accessible from top
Built-in, dual channel facilities
Unitized, plug-in chassis construction
Fully overlapped cover on completely dust-proof cabinet
Dual vibrator power supply


DASH MOUNT


BENDIX BANTAM


CONSOLE BASE STATION

Bendix DYNA-COM

ALL NEW! BRAND NEW! MOBILE UNITS AND BASE STATIONS

The result of over 5 years laboratory research and development, Bendix* Dyna-Com is *the first big advance* in 2-way radio in over a decade. All new from chassis to cabinet, each model incorporates all the latest improvements which have made Bendix the foremost leader in railroad and aviation communications; in airborne navigation; in radar and in military electronics.

For example, Dyna-Com's unitized design sets a new standard for performance and dependability. It features plug-in, interchangeable chassis construction which speeds service and saves maintenance costs. Any chassis in the Dyna-Com line can be transferred, without adjustment or modification, between mobile units and base stations.

Designed to meet the exacting requirements of fire-fighting duty; the Dyna-Com line covers all frequencies. High-powered models enable vehicles to maintain contact with headquarters and each other. The Bendix Bantam and Portable designed especially for low-power fire service—most versatile FM 2-way radios ever built—provide low cost, on-the-scene communications.

All units are fully enclosed in rugged, weather-resistant, steel cabinets. New desk console base stations permit remote vehicles to be contacted in minimum time. Operating controls are located on front panel, which includes loudspeaker, cyclotron clock and meter with a 17-position switch for instant, finger-tip monitoring of all circuits.

Get the full story on how Bendix Dyna-Com can boost the efficiency of your communications. Let a Bendix Communications Engineer survey your needs without obligation. Call or mail coupon today for full information on Dyna-Com—*the first big advance in 2-way radio!*

*Reg. U. S. Pat. Off.

Bendix Radio

DIVISION OF BENDIX AVIATION CORPORATION • BALTIMORE 4, MD.

Bendix Radio
Mobile Sales, Dept. N
Baltimore 4, Md.

Gentlemen:
Please send me complete details about Bendix Dyna-Com 2-Way Radio

☐ 25-54 mc. ☐ 450-470 mc.
☐ 144-174 mc. ☐ Bantam
☐ Portable

Name_____
Title_____
Address_____
City_____ State_____

FALSE ALARMS

Better Luck Next Time

The feature act in the Limehouse Music Hall in dear ol' Lunnon was a man knife thrower and his very homely wife.

At the high point of his act, the knife tosser stood his "other half" against a big board with her arms outstretched and a frightened look on her face.

Then he backed fifteen paces, picked a wicked looking knife off a table, turned, raised his arm and let fly at the target. The knife thudded into the backstop, a whisker from her ear.

Up in the gallery a shrill cockney voice piped out, "My Gord, 'e missed 'er!"

Solicitous!

It was to be his first child. The young father-to-be hurried his wife to the hospital, registered her in the maternity ward and asked anxiously, "Dearest, are you positive that you want to go through with this?"

Reporter: "I've got a perfect news story."
Editor: "How come? Man bite a dog?"
Reporter: "No, but a hydrant sprinkled one!"

Yale Record

Kinkchaser came to a red light, stopped his car and noticed something on the near corner.

"Hey, miss," he shouted.

Came back the frail "No sir, you haven't seen me somewhere before . . . and I'm not lonely . . . I'm not waiting for a cab or a streetcar . . . I'm waiting for my husband."

The traffic light turned green. Kinkchaser shifted gears.

"All I wanted to say, was you're losing your petticoat."

Hildegarde says: "A woman should wear just enough clothes to keep a man warm."

". . . So then just as we roll up, Finnegan says to Sweeny . . ."

Proof Positive

A roving broadcast announcer was conducting a sidewalk interview in a southern city. His subject was a bright young thing.

"What did your husband say when he proposed?" asked the interviewer.

She replied that he just said he loved her and asked her to marry him.

"Didn't he do anything to back up his statement?" inquired the announcer.

"Oh yes indeedy," she replied brightly, "We have two sons!"

A Back Bay matron was voicing her indignation over the indecent words being scrawled on the walks and walls of the city. "What will outsiders think," she cried, "Why, some of the words aren't even spelled right!"

Once Bitten, Twice Shy

Pa and Ma Jones were around the corner of the porch listening in on the young couple in the hammock.

Ma: "Pa, I think he wants to propose to her. We ought not to listen. Do something—whistle to him!"

Pa: "Why should I? Nobody whistled to warn me."

Sweet young thing to veteran smoke-eater: "Have you had a full life?"
Veteran: "I've had my sober moments."

Two little rabbits went for a walk in the country. After they had been walking for some time they sat down to rest. Presently a skunk came along and sat down beside them. After awhile, one little rabbit sniffed. Then the other sniffed, and whispered:

"I say, old man, don't you think somebody ought to tell him?"

Naughtical?

In Larchmont, N. Y., an instructor in power boating was lecturing the class which included several on the distaff side.

He asked a female skipper "What signal would you give if you were coming out of a slip slowly stern first?"

The class recessed in a hurry.

"Well, I guess I might as well put the motion before the house," said the girl in the chorus as she pranced out onto the stage.

Landlady: "Did you knock on that soldier's door and wake him as I told you to do?"

Maid: "Yes'm, but he didn't wake up, so I had to go in and shake him."

Landlady: "Good heavens, don't you know better than to go in a soldier's room?"

Maid: "Yes'm, I do now."

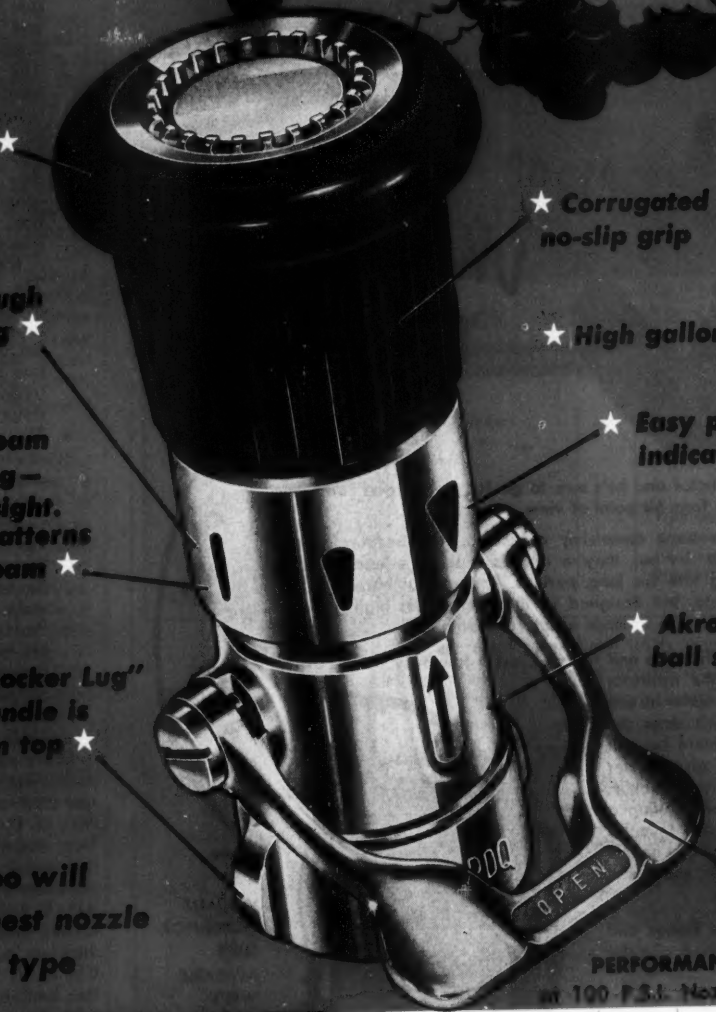
YOU EXPECT THE BEST FROM AKRON BRASS

– here it is . . .

Entirely New

PDQ

FOG NOZZLE



★ Resilient rubber bumper for protection against damage

★ Corrugated no-slip grip

★ Adjustable through all angles of fog

★ High gallonage

★ Easy pattern indicators

★ Positive stream positioning — by feel or sight. Clicks into fog patterns or straight stream

★ Akron quality ball shut-off

★ Swivelling "Rocker Lug" base — handle is always on top

★ Man-size handle

You too will agree — finest nozzle of its type

PERFORMANCE DATA
at 100 P.S.I. Nozzle Pressure

STYLE	SIZE	GPM	PRICE PB	PRICE CP
1209	¾"-1"	24	$67.50	$72.00
1218	1½"	95	72.00	76.50
1219	1½"	125	72.00	76.50
1229	2½" for PP	250	78.50	84.00
1239	2½" Dir. Con.	250	92.00	97.50
1249	2½" with PP	250	102.00	115.50

AKRON BRASS

FIRE FIGHTING EQUIPMENT

Akron Brass Mfg. Company, Inc. • Wooster, Ohio

LEGISLATION

Continued from page 749

Law benefits were made mandatory in 1948. In 1944 the weekly disability benefits were increased by the Legislature from $20.00 to $25.00; in 1947, from $25.00 to $28.00; in 1950, from $28.00 to $32.00 and in 1954 from $32.00 to $36.00.

It was recognized that the provision for firemanic benefits under two different laws was far from the ideal system. Discussions to provide a better system of financial benefits for volunteer firemen started on an informal basis late in 1950 and eventually resulted in the creation of the Temporary State Commission on Fire Laws in 1953. This Commission stated that the solution of the problem of volunteer firemen's benefits was "essential in order to hold and attract the membership necessary for the fire services to function efficiently in the protection of the local community and in furnishing aid to outside areas." The Commission devoted its major efforts to this problem for two years. It was succeeded by the Joint Legislative Committee on Fire Laws in 1955 which continued the work. The Committee recommended the repeal of the present dual system of benefits and the enactment of a new Volunteer Firemen's Benefit Law, to take effect on March 1, 1957. The proposed legislation became Chapters 696 and 697 of the Laws of 1956. The new law, of which we know of no counterpart, provides substantially increased protection to thousands of volunteer firemen and their families.

Progressive laws passed

It is impossible to list in a brief article the many progressive laws affecting the fire service which have been passed by the Legislature in the last decade. Of the other measures enacted on recommendation of the Temporary Commission on Fire Laws and the Joint Legislative Committee on Fire Laws, we regard as the most important:

1. The new school fire safety inspection law which utilizes both the paid and volunteer fire service for such inspections. (L. 1955, c. 871)
2. The various "home rule" amendments which permit non-resident volunteer members to be admitted to membership in fire companies, within certain limitations, where they live on the fringe areas of a community or district, or in a contract area, and are available to render active fire service. (L. 1954, c. 699; L. 1955, c. 83)
3. The providing of uniform strict penalties where false alarms are turned in. (L. 1956, c. 503) This has been implemented by the initiation of a program of education of school children as to the dangers resulting from such alarms.
4. The expansion of the powers of fire emergency relief squads and firemen to furnish assistance in emergencies other than fires. (L. 1956, c. 438 and 449)
5. The legalization of membership of thousands of volunteer firemen in fire companies. (L. 1955, c. 12, c. 13 and c. 14)
6. Provision for immediate payment of benefits to volunteer firemen pending litigation as to which municipality or fire district, (or their insurance carriers) is liable. (L. 1955, c. 127)

Other measures related to supplemental blanket accident insurance for volunteer firemen (L. 1954, c. 804); the exemption of the proceeds of such insurance from execution (L. 1955, c. 98); the financing of insurance against liability for volunteer firemen's benefits (L. 1954, c. 411; L. 1955, c. 397 and c. 638; L. 1956, c. 90) and the purchase of such insurance on a "group" basis (L. 1954, c. 616 and c. 617). Still others liberalized the laws applying to contracts for fire protection (L. 1955, c. 391; L. 1956, c. 102 and c. 614), broadened the powers of county and deputy county fire coordinators in the operation of motor vehicles in emergencies (L. 1955, c. 185, c. 186 and c. 268; L. 1956, c. 55), and increased the spending power of newly-created fire districts (L. 1955, c. 334).

Compensation for volunteers

In 34 of the 62 counties in New York State, workmen's compensation is provided by mutual self-insurance plans in

"I go for a DRAGON® FIRE PUMP every time!"

Give a fireman a choice and he's sure to go for the Dragon Fire Pump —the one designed from *his* point of view.

Dragon Fire Pumps come *completely assembled.* And because there's no pump packing to dry out, they're always ready for instant action, even after standing idle for long periods. The special harness is not only easy to get into, but designed so the pump rides high where it can't throw the fireman off balance or interfere with walking.

Dragon Fire Pumps fight fire *and* fatigue! Just a few easy strokes of the pump lever gives the operator a *continuous* flow of water he can direct right where it does the most good. And a mere twist of the shut-off nozzle gives either solid stream or spray *instantly.* What's more, a fireman using a Dragon Fire Pump can take his hands off both shut-off nozzle and pump lever to use rake, shovel, or other tool.

Specify Dragon Fire Pumps and get the pump designed with the *firefighter* in mind.

VALUABLE DISTRIBUTORSHIPS AVAILABLE, WRITE TODAY.

Dragon FIRE PUMPS

now available in 2 models

No. 150-S—Stainless Steel Tank

No. 150-G — Galvanized Tank: Cold-rolled steel, hot-dipped galvanized after fabrication.

All units equipped with brass pumps; all tanks seam welded. Capacity 5 gallons

DRAGON FIRE PUMPS meet Underwriters' Laboratories requirements and can be supplied with the UL label of inspection attached.

PARCO PRODUCTS COMPANY

PENNSBURG, PENNSYLVANIA

which counties, cities, towns, villages and fire districts participate. As a result of legislation enacted in 1955 upon recommendation of a committee headed by former State Comptroller J. Raymond McGovern, important changes in these self-insurance plans will take effect on January 1, 1957. These changes, among other things, will dispose of some very complicated legal problems as to the coverage of volunteer firemen for firemanic benefits under such plans.

A recent development affecting the fire service has been the so-called "natural disaster" legislation. This started with the enactment of L. 1954, c. 161, which gave the Governor broad powers in the event of natural disasters such as "floods, drought, *fire*, hurricane, earthquake, storm or other catastrophe." The State Civil Defense Commission sponsored legislation which became Chapter 773 of the Laws of 1955. Under this law the civil defense forces are made available as a *reserve* disaster forces to be activated by the sheriff,* the mayors of the cities and the Governor. The law is broad enough to permit the activation of the fire service as a part of the civil defense forces under the direction of the county civil defense director. Natural disaster legislation is still in its infancy and will undoubtedly undergo many changes. This legislation presents practical and legal problems to the fire service which have been the subject of discussion and are yet to be resolved.

While legislative proposals affecting the fire service are discussed on a county, regional and statewide basis at meetings of various associations representing fire districts, fire chiefs and firemen, the Joint Legislative Committee of Fire Laws has filled a need of the fire service. The Legislative Committee consisting of members of the Legislature, the State Comptroller, the Superintendent of Insurance, the Director of Safety, the Chairman of the Workmen's Compensation Board, and representatives of cities, towns, villages, fire districts, fire chiefs and firemen, provides a common meeting ground where legislative proposals can be discussed on a broad basis. Such cooperation has proved its value in that 39 out of 41 legislative proposals of the Temporary Commission on Fire Laws and the Joint Legislative Committee on Fire Laws during the last three years are now laws of this State. The fine tradition of service of the volunteer firemen and the long standing recognition of their importance to the State, as reflected in our laws going back over 165 years, surely will continue. □□

By reason of L. 1956, c. 909, such powers of the sheriff in natural disaster cases are vested in the county executive in Nassau County.

'56 Fire Prevention Week

President Eisenhower has proclaimed the week of October 7-13 as Fire Prevention Week and called upon all people of the country to take an active part in its observation.

BEST SOLUTION TO YOUR HOSE STORAGE PROBLEMS

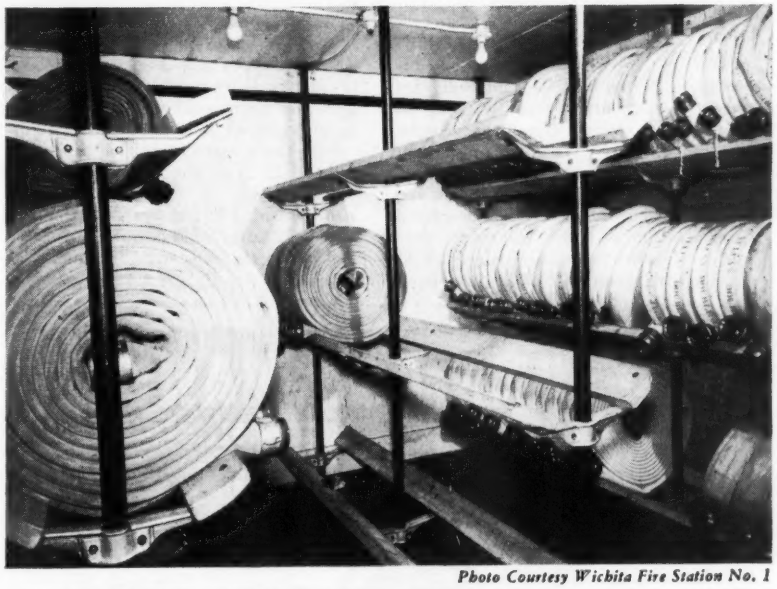
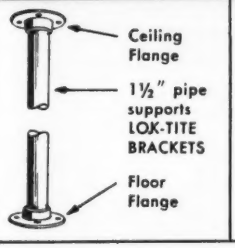


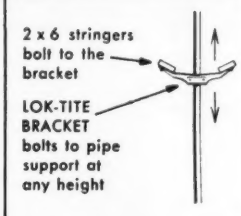
Photo Courtesy Wichita Fire Station No. 1

BUILD YOUR OWN RACKS WITH LOK-TITE BRACKETS

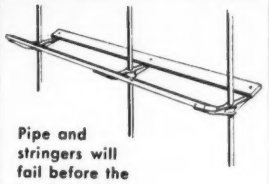
SIMPLE INSTALLATION

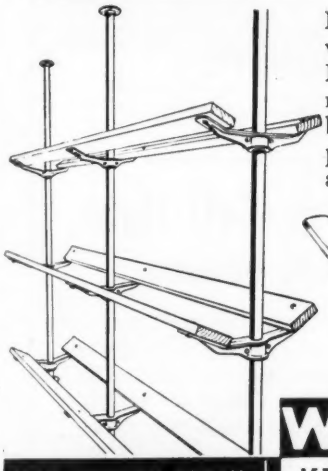


EASY ADJUSTMENT



BIG LOAD SUPPORT





Protect your hose with ample ventilation. Provide quick, easy access for use and inspection. Promote good housekeeping and make the most of your storage space, by planning and building your own racks – from new or used pipe and lumber, and handy, sturdy, fully adjustable Lok-Tite brackets.

Lightweight, high-strength aluminum alloy Lok-Tite brackets – designed for easy installation.

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Among the Buffs

By Paul C. Ditzel

YOU CAN FORGET the oratory and reports at the International Fire Buffs Association Convention recently held in Newark. The real convention story broke in New York City where the Third Alarm Association hosted the visiting buffs.

The Third Alarmers entertained the fans in a suite on the 27th floor of the Governor Clinton Hotel. The rooms were open and manned continuously from 6:30 Saturday night until 6 o'clock the following evening. Two radios were constantly tuned to borough frequencies and perhaps 140 alarms were logged during the time the buffs swapped lies about the merits of their respective departments.

But along about 2:30 Sunday afternoon the parley began to lag. Stalwarts from Baltimore's Box 414 Association decided to call it a weekend and as they left their parting remarks were: "Just as soon as we leave, all Hell will bust loose."

And that's exactly what happened.

At 3:10 p.m. the radio beeped and was followed by the dispatcher's announcement: "Manhattan Box 759—Location Broadway and 39th Street."

The visiting buffs were only mildly interested.

Three minutes later the radio fairly blasted: "In the Borough of Manhattan, a second alarm has been transmitted for Box 759."

The usually staid Governor Clinton Hotel management never saw anything like what happened in the next couple minutes. Even the American Legion convention was tame compared to the wild stampede out of the hotel. The casual observer would have had the idea that the second alarm was to be the last fire in creation and by golly he'd better get on his horse to see it, too.

My intrepid correspondents from the TAA, Barclay G. McKeough and Al Schuman supply these additional details:

The blaze had complete control of the second floor of a 6-story building at 37th and Broadway.

Deputy Chief Jim Ward of the 3rd Division who not long before had visited the buffs at the hotel, was in charge of the fire. He ordered a deck pipe rigged with two 3-inch lines and a large tip. As soon as the lines were charged the hose wagon containing the pipe was driven back and forth and the stream covered all windows on Broadway and 37th Street. Bre'r Schuman says this is a rare evolution.

Just to keep the record straight, we might as well follow Doc Levin's practice and mention some of the buffs who attended: Al Baer and Bernie Granjany of the TAA, Ralph O. G. Fisher, Bert Brady, Kay Kallman, Harry Hadden, plus Mrs. Fisher and her boys, all of Chicago; Bill Wheless of Dallas, Texas, (my wife, who doesn't understand such things thinks this is an awful long way to go just to see a fire) Dave Sheftell of Washington, D. C.; Julian Forrest, Sr., and Julian Forrest, Jr., of Baltimore.

I have before me the current newsletter of the Baltimore Box 414 Association. It says cryptically: "The only sad note of the convention from a fire buff's point of view was the fact that we left for home 20 minutes before an additional alarm came in."

Box 414's Charlie Price, Ray Wheatley, Freddie Moreland, Thomas Grogan and George Bollinger were among the also rans, and it's reported they had a very quiet trip back home.

Both the TAA's and the 414'ers, together with other clubs reporting, highly commended the hospitality of Newark's Bell and Siren Club.

In passing, we might note that the TAA's are currently rhapsodizing about their new canteen wagon and the 414 enthusiasts are showing off their new quarters at 3001 South Hanover Street—a real mansion with a panoramic view of South Baltimore, Fort McHenry, Canton and Fairfield. No more need to chase fires when you can see them from the hilltop, it says here.

The Friendship Fire Association of Washington, D. C., continues to come up with innovations faster than I can report them. John Lee Turner, FFA secretary, sends along a sample label that is placed on all free sandwiches, cakes, etc., given to fire and police. The red and white sticker says: "compliments of FRIENDSHIP FIRE ASSOCIATION, Washington, D. C."

Meet "THE COMMANDO"

CHECK THESE QUALITY FEATURES:

- Weighs only 67 ounces including battery
- Weather-proof — rugged, highly polished stainless steel
- Complete focus range — both spot & flood
- Long-life, trouble-free switch
- Non-scratch lens with sturdy steel guard
- Combination handle & shoulder sling — ready for action
- Protective compartment for extra bulb — always a spare
- Reflective "Scotchlite" jacket designed for safety and easy recovery

It's Koehler's new Dry-Cell light with the half-mile beam!

Here, at last, is a lightweight dry-cell hand lamp that's really packed with power. "The Commando" weighs only 67 ounces, including battery...yet its beam slices through darkness for half a mile! And it's as rugged as it is powerful, built for the roughest going in any weather.

"The Commando" is no "flash" light — each sealed-in-steel battery gives you 5 hours of continuous use! This makes it economical for any department and *ideal* for the volunteer. It's the perfect dry-cell counterpart of the famous Wheat Rechargeable Spotlight. Remember, they're both dependable products of Koehler — quality name in portable lighting for over 40 years.

For information or trial, write to Dept. B

KOEHLER MANUFACTURING COMPANY

"40 years of quality" • Howland Place, Marlboro, Massachusetts

Johnny didn't send me a sandwich so I can't comment on the ability of the club's maitre d'.

This group of Washingtonians sure lives up to its name. A friendlier organization I've never encountered.

Bill Wheless, Jr., is the new editor of *This Month*, the newsy publication of the Dallas Emergency Corps, succeeding J. Colon Bishop. The first issue under the new editor and his assistant, Jim Winborn, reports that the corps has been given a Motorola 60-watt two-way base transmitter. The corps has applied for a license to operate its own dispatching system in the 37,900 band.

If someone will loan me a pair of six-shooters and a horse, I'd take off for Dallas to write a magazine piece on this truly incredible organization. I doubt whether there's another like it in the United States, as you must know from past columns.

Striking it out again this month, I add only my condolences to the 414 Association conventioneers. They might find succor in the news that San Francisco's tyro, Doc Levin, misses most of the big ones these days himself. Send your contributions to me at 419 Napoleon St., Playa del Rey, California.

What's Burning?

THE FOLLOWING LIST includes fires of $10,000 and over in the United States and Canada for the period from July 22nd to August 22nd.

Yuma, Ariz.—S and W Ranch, eleven miles east, damaged.
Fort Smith, Ark.—Building housing Progress Club. Elks Club, American Legion, luncheonette and Central Supply Co., destroyed.
Angwin, Cal.—Boys annex dormitory at Pacific Union College, Napa County, destroyed. Pilot light ignited cleaning fluid.
Arcata, Cal.—Arcata Laundry destroyed.
Los Angeles, Cal.—W. P. Fuller Co. paint plant damaged. Static electricity ignited lacquer fumes.
Los Angeles, Cal.—Wilshire Manufacturing Co. plant and Light of Hollywood plant adjoining, destroyed.
Los Angeles, Cal.—Zenith National Insurance Co. damaged. Arson.
Oakland, Cal.—Chester Hotel destroyed.
Quincy, Cal.—Eight buildings in American Valley, Plumas County, destroyed.
Newport, Del.—Krebs Pigment plant damaged. Molten magnesium overflowed.
Jacksonville, Fla.—Florida-Georgia Distributors Co. building damaged.
St. Marks, Fla.—Warehouse and several tanks at Seminole Asphalt Refining Co. plant damaged.
Brunswick, Ga.—Navy blimp at Glynco Naval Air Station destroyed. Lightning.
Tofton, Ga.—The Big Store, department store, destroyed.
Trion, Ga.—Riegel Textile Corp. plant damaged. Lightning.
Chicago, Ill.—Czerwiec Lumber Co. yard destroyed.
Chicago, Ill.—Cromwell Paper Co. building damaged.
Chicago, Ill.—Three buildings occupied by Acorn Paper Box Co.; Alphaloy Corp., solder alloys manufacturers, and W. Schreiber & Co. as lumber storage, damaged.
Chicago, Ill.—John Crerar School and Apex Smelting Co. damaged.
Illiopolis, Ill.—DeKalb Agricultural Association

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BUT THERE'S
ONE
IMPORTANT
difference
*
You can buy drills in the dime store . . . or pay thousands of dollars for a diamond drill. They *look* alike . . . but the difference is in the job you want your drill to do.
Fire hose spends most of its life hanging on racks but you certainly don't buy it because it looks good hanging there . . . or *do* you?
THE *SAFEST* INVESTMENT IS BI-LATERAL FIRE HOSE... IT COSTS *LESS* TO BUY THE BEST!
If you want *safety* AND *savings*, one way to be *sure* is to *look at the record!*
Bi-Lateral furnishes *FREE* hose record cards—send for your supply today.
You can't get Bi-Lateral Fire Hose in the dime store—for bargain prices. But Bi-Lateral *is* still your best bargain for the job you want to do—that's the important difference in fire hose!
*
Here's a sample piece of fire hose—it looks just like the piece below—yet . . .
This fire hose is worth 10 times—maybe 1,000 times—as much!
Bi-Lateral hose is built *up* to a standard not *down* to a price! There's a *reason* for Bi-Lateral—it's to put out fires! It will prove to be your most *economical* purchase as well as your *safest* investment!
(Bi-Lateral *IS* cheaper *in the long run*. Hose record cards prove it! Send for yours . . . free.)
Bi-Lateral®
FIRE HOSE CO.
20 NORTH WACKER DRIVE • CHICAGO 6, ILLINOIS
IN CANADA: Bi-Lateral Fire Hose, Kitchener, Ontario.

warehouse, three miles west on U. S. 36, damaged.

Joliet, Ill.—Meat market owned by Otto Briick and apartment building damaged.

Indianapolis, Ind.—Riverside Amusement Park damaged.

Indianapolis, Ind.—Indianapolis Drop Forgings Co. damaged. Lightning.

Indianapolis, Ind.—Builders Lumber Co. damaged. Lightning.

Peru, Ind.—Bunker Hill Air Force Base damaged.

Taylorsville, Ind.—Ralph Snyder grain elevator destroyed.

Independence, Ia.—Wapsie Valley Feed Co. plant destroyed.

Covington, Ky.—Main building of Tate Builders Supply Co. damaged.

Alexandria, La.—Elementary school building at Dry Prong destroyed. Lightning.

Baltimore, Md.—A & P Super Market destroyed.

Gloucester, Mass.—Old Moore plant of Gorton-Pew Fisheries and wharf destroyed.

Rochester, Mich.—Production building of Oakland Foundry & Machine Co. destroyed.

Clarks Grove, Minn.—Clarks Grove Lumber Co. yard. Children's fire spread.

Pipestone, Minn.—Hicks Oil Co. plant, Northern States Power Co., Armour's Creamery and Rock Island Railroad property damaged.

Kansas City, Mo.—Knicks Mend Rite Co., rubber automotive products manufacturer, destroyed.

Billings, Mont.—Yellowstone Country Club destroyed.

Chester, Mont.—Grain elevator and two annexes at Tiber railroad siding, five miles west, destroyed.

Missoula, Mont. — Smith Building, housing Savon Drug Store and offices, destroyed.

Missoula, Mont.—Barite Mine buildings destroyed. Faulty stove.

Bradley Beach, N. J.—Building housing hardware store and apartment, damaged.

East Paterson, N. J.—Grand Union Super Market, Route 4, damaged.

Mountain View, N. J.—Willow Brook horse barns, Route 46, damaged.

Paterson, N. J.—Germain Store Equipment Co. damaged.

Rutherford, N. J.—Zimmerman's Department Store damaged.

Albany, N. Y.—Osterhout's Restaurant in nearby Helderburg Mountains, damaged.

Binghamton, N. Y.—Barn at Binghamton destroyed. Spontaneous ignition.

Buffalo, N. Y.—Two buildings at Washington-Fillmore Foundry, Inc., destroyed; two others damaged.

Canandaigua, N. Y.—Barn on Harold E. May farm destroyed.

Niagara Falls, N. Y.—Three buildings destroyed and six others damaged at Olin Mathieson Chemical Corp. plant. Explosion.

Rochester, N. Y.—Snirks-Boyce Motor Lines Corp. terminal damaged.

Syracuse, N. Y.—Syracuse Lumber Co. damaged.

Hildebran, N. C.—One building destroyed, another damaged at Hickory Specialty Co.

North Wilkesboro, N. C.—Prevette's Men's Shop and Prevette's Women's Shop destroyed.

Raleigh, N. C. — Edenton Street Methodist Church destroyed. Lightning.

Ada, Ohio—Building housing Ada Auto Parts Co. and Ada Ice and Coal Co., damaged.

Cadiz, Ohio—Cadiz Battery Co. garage and service station damaged.

Cincinnati, Ohio—Oscar Phillips Co. fluorescent light and sign plant damaged.

Cleveland, Ohio—Shed and boxcar at Meyers Inc. and Nickel Plate Railroad destroyed; dwelling damaged. Arson.

Conneaut, Ohio—Apparel plant destroyed.

Dayton, Ohio—W. H. Kiefaber Co. warehouse and factory damaged.

Greensburg, Ohio—Natco Corp. warehouse and dryer room destroyed.

Holgate, Ohio—St. John's Evangelical and Reformed Church, three miles north on State Route 108, destroyed.

South Euclid, Ohio—Dwelling of Joseph F. Bortoff damaged. Lightning.

Wilmington, Ohio—Clinton County Producers and Livestock Co-operative Association stockyards damaged.

Lawton, Okla.—C. R. Anthony Department Store destroyed; two adjoining buildings damaged.

Coos Bay, Ore.—Fithian Swap Shop and Blue Moon Cafe destroyed.

Portland, Ore.—Carmen's Restaurant destroyed.

Roseburg, Ore.—Canyonville Tavern, a plumbing shop and warehouse destroyed.

Sandy, Ore.—Koch Lumber Co. destroyed.

Sweet Home, Ore.—G. and H. Veneer Co. destroyed.

North Augusta, S. C.—TV station WJEF destroyed.

Society Hill, S. C.—St. David's Academy destroyed. Lightning.

Society Hills, S. C.—High school building destroyed. Lightning.

Providence, R. I.—Lumber storage building of Jack Dworman, damaged.

Madison, S. D.—Grain elevator of Edward Callan destroyed.

Harriman, Tenn.—Municipal building auditorium damaged.

Tullahoma, Tenn. — Tennessee Valley Metal Culvert Co. plant destroyed. Vat of tar exploded.

Dallas, Tex.—Klimist Store Fixture Manufacturing Co. destroyed.

Dallas, Tex.—Falk Fabric Co. building damaged.

Grapeville, Tex.—Ranch home of E. H. Reeder, north of State Highway 114, destroyed.

Jacksonville, Tex.—Childs Grocery Co. warehouse, Aber Box & Basket factory and two peach packing sheds and Cherokee County Co-operative Peach Growers, Inc.

Central Point, Va.—Central Point Roller Mills, Byrd's Mill Creek, destroyed.

Richmond, Va.—Carter-Venable Co. grain elevator damaged.

Dayton, Wash.—McCauley's Grocery destroyed. Defective refrigerator unit.

Ephrata, Wash.—Ephrata Bottling Distributing Co. destroyed.

Everett, Wash. — Hulbert Lumber Mill destroyed.

Pasco, Wash.—Pasco Engineering Storage Depot destroyed.

Toppenish, Wash.—Toppenish Rodeo Grounds destroyed.

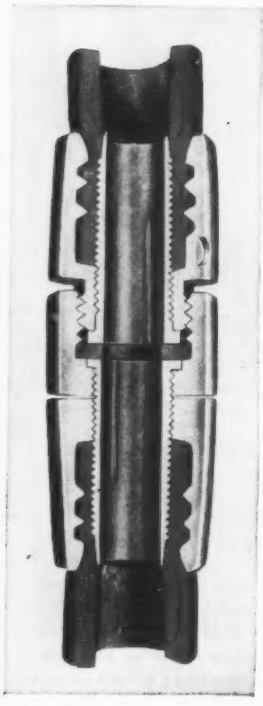
Vashon, Wash.—Kirscher plastics factory destroyed.

White Salmon, Wash.—Hoppe de Nulde sawmill destroyed.

Yakima, Wash.—Laurent's Super Market destroyed. Faulty incinerator.

SPECIFY **BAR-WAY,**

THE ACCEPTED STANDARD FOR HIGH PRESSURE HOSE COUPLINGS . . .



1. **RELIABLE**—Bar-Way builds to quality standards. We make the best possible.
2. **NO-CHOKE**—Coupling resistance to flow within plus or minus 2% of equivalent hose length.
3. **HIGH-SLIP**—Non-snagging design so that all models slip over ground obstructions.
4. **STANDARDIZED**—Interchangeable parts, 100% inspected; made on automatic equipment.
5. **STOCKED**—Shipments made from stock on all standard types from Stamford.

WHAT'S NEW

The new rubber *lubricant*, BAR-LUBE, makes it *easier* to do a *proper* job of installation. A special oil that makes a "right" tight fit, so that BAR-WAY holding power is right. Oil is inert; rubber is unaffected. Apply *sparingly* to both hose and expander. Available through your local fire equipment distributor.

BAR-WAY MFG. CO., STAMFORD, CONN.

Graham Station, W. Va.—Philip Sporn power plant damaged.

Ronceverte, W. Va.—C. J. Casdorph No. 1 store, grocery, and Eagen Building housing State liquor store apartments, destroyed.

Phelps, Wis.—Planing mill and drying sheds of C. M. Christiansen Lumber Co. destroyed.

Kodiak, Alaska — Pacific American Fisheries plant destroyed.

St. John, N. B.—Agnew Surpass shoe store and adjoining building, damaged. Arson.

Halifax, N. S.—Four buildings owned by Foundation Maritime Ltd. on waterfront, destroyed.

Cornwall, Ont.—McCracken Building housing Chicken Palace Restaurant; Underwood Ltd., typewriter firm; Moore Business Forms; Baxter Bros. Radio and Television Appliances; Reward Shoe Store; beauty salon and apartments, damaged.

Hamilton, Ont.—Toronto, Hamilton and Buffalo Railway wooden structure bridge damaged. Arson.

Hull, Ont.—E. B. Eddy newsprint plant damaged.

Toronto, Ont.—Four small shops on Queen Street damaged. Vagrants.

Correction

Our readers' attention is called to an error in the article "What Is The Best Way To Alert Volunteers" in which the captions on two illustrations appearing on page 651 were inadvertently transposed. Apologies are extended to the Allen B. Du Mont Laboratories, Inc. and Motorola, Inc.

July Fire Losses

Estimated fire losses in the United States and Canada during July amounted to $68,752,000, the National Board of Fire Underwriters has reported.

According to Lewis A. Vincent, NBFU's general manager, this $68,752,000 loss represents a decrease of 8 per cent from losses of $74,770,000 reported for June, 1956, and an increase of 11.6 per cent over losses of $61,614,000 reported for July, 1955.

Losses for the first seven months of 1956 now total $586,155,000, an increase of 10.3 per cent over the first seven months of 1955, when they amounted to $531,371,000.

These estimated losses include an allowance for uninsured and unreported losses.

Smokey Bear Reports Progress

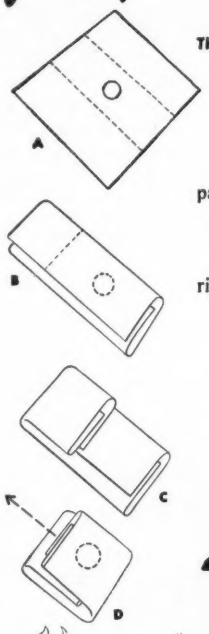
Smokey Bear, who cautions travelers and others from coast to coast, through the efforts of the Department of Agriculture's Forest Service and the Advertising Council on how to prevent forest fires, reports that last year forest fires fell to a new low.

Some 8,000,000 acres were burned over in about 145,000 fires, the best record since 1942.

The Department sounds a discouraging note however, in its report, pointing out that all but 10,000 of those fires were man-made.

"It is obvious that more persons need to listen to Smokey Bear's warnings," admonishes the New York *Times*.

They'll never suspect...



. . . THE SECRET BEHIND THIS LITTLE TEASER!

Onlookers will marvel when, after borrowing a coin and wrapping it in an ordinary piece of paper, you ignite the paper and make the coin dramatically vanish in a puff of smoke! The secret? — it's all in the way you wrap the coin. Follow steps A, B and C in the diagram, then just before folding in the right-hand side tilt the paper to the right permitting the coin to slide out to the edge of the paper. When you make the last fold (Step D) the coin will be in the pocket just formed. Ask everyone to feel the wrapped coin, which will seem to be firmly enclosed in the paper. Now while someone gets you a match and an ashtray, slide the coin into your palm, and you'll be ready to set the paper ablaze, place it in the ashtray, and enjoy their amazement when nothing remains but a heap of ashes!

They'll all know...

. . . WHEN YOU'RE WEARING A **BLACKINTON** BADGE

That look of quality just can't be concealed — it speaks for itself with its handsome design, precision styling, and gleaming finish. You'll be proud to have everyone know your badge is the very best — a BLACKINTON badge.

Have You Seen The New HI-GLO Badge? Unlike Our Vanishing Coin, That Rich HI-GLO Luster Will Never Disappear No Matter How Much It's Polished.

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SEE YOUR EQUIPMENT SUPPLIER FOR BADGES AND UNIFORM INSIGNIA FOR EVERY SERVICE AND INDUSTRY.

THE WATCH DESK

overhauling the firemanic news of the day

Tell It to the Marines—About the Burrowing Hose

We thought the stories about the burrowing hose were buried, along with the hose, after the storm of wild reports that swept the nation a coupla years ago, but it seems it isn't so. A new one has popped up, this time from the Marines' sandy basic training center at Parris Island, S. C.

This hungry hole reportedly devoured 20 feet of garden hose on July 11 despite the efforts of three husky Marines and the entire fire department. Honest, that's the way the story goes.

Mrs. Bernard Pekala, wife of a Marine staff sergeant at the base, was using the hose to fill her child's wading pool. She came out of the kitchen and found the pool overflowing, so she tossed the hose on the ground nearby while she dumped some water out of the pool.

Minutes later, when she turned around to retrieve the hose, she saw it snaking its way into the ground. She called for help and three Marines pulled with all their might but the hose kept disappearing.

Efforts of the base fire department also were unsuccessful, according to the press. Now you tell one!

for on the spot treatment of burns.

safe - immediate relief!

HEXATHRICIN

Lincoln

automatic **aerospra**

will help SAVE a life!

Healing is 28% faster.

You will find HEXATHRICIN Aerospra particularly valuable in emergency and routine treatment of burns of all natures and all degrees of severity. It may be used with exposure or closed or pressure dressings.

Specific for all fungus and bacterial infections of the skin—poison ivy, poison oak, and indolent ulcers such as varicose ulcers and bed sores.

For literature write—

Professional Service Dept.,

Lincoln Laboratories, Inc.

Box 1139, Decatur, Illinois

Fumigating Goes Phfffft!

In Fort Worth, Tex., where they do everything in a big way, a couple of amateur house fumigators worked on a parsonage, June 1 last, trying to kill mosquitoes and termites (they grow 'em mighty big down'n Texas!).

Well, the termites don't have a home any more. Nor do the other vermin. The reason?—the parsonage blew up. What remained burned down.

Luckily no one was in the six-room brick veneer home of the pastor of the Oakview Baptist Church and his family at the time of the incident. A road supervisor and a public works employee were the Good Samaritans. They were equipped with a county health department fogging machine filled with a mixture of diesel fuel and insect poison.

The City Fire Marshal, who estimated the loss at $10,000, said the explosion was touched off when spray, highly volatile in vapor form, came in contact with the pilot light of the hot water heater.

Good Samaritans of Ashland

Mr. and Mrs. Vincent Doyle are doubly grateful to the members of Ashland, N. J., Fire Company No. 2. Burned out of their home on the same day they had moved into it was tragic; finding another place to live was practically impossible on such short notice. But friendly firemen came up with the answers.

Fire Chief Richard Wilson and the members of the fire company knew of an available flat. A collection was taken up by the fire fighters and the quarters rented. When Mr. and Mrs. Doyle returned that evening from an unsuccessful house-hunt, they found their remaining possessions moved from the burned structure into a spick-and-span apartment, all by courtesy of Ashland Fire Co. No. 2.

Hot Off the Tape

This summer marks the 250th anniversary of Albuquerque, N. M. As part of the celebration all local males are expected to raise beards as their part in the doings. But the Albuquerque Fire Department doesn't go for it. Assistant Chief Simon Seligman says his men consider the chin foliage fire hazards. . . . A female patient flipped a switch in a corridor of the Middlesex General Hospital, hoping to turn on a light. You guessed it—the switch was a fire alarm. Came four engines and other equipment. The woman was chagrined. The brothers were just

plain peeved. . . . Seems like Newark fire fighters get all the headlines about life saving by net. Now we learn that not long ago a 61-year-old man with a broken leg, trapped in a third floor bedroom in a building at 339 Plane Street, that city, hung by his hands from a window ledge, then dropped into a life net held by firemen and civilian volunteers. . . . Elmira, N. Y., firemen were indeed "home on the range" recently when they had to contend with exploding 22-calibre cartridges and shotgun shells, while fighting a fire in a two-story business block. Ammo was stocked in an arms shop in the building. . . . In Adrian, Mich., Selmar M. Purnell of that city was ruled insane after admitting setting 11 fires in the area. . . . Some so-and-so swiped the hubcaps from Fire Chief Paul Wetzel's car parked in front of his house in Hawthorne, N. Y. . . . We lamped this typographical "bull" in the report of a Long Island convention of vamps: *Thirty seconds of silence were held for our deported members.* . . . In Grand Haven, Mich., a 2-year-old who hadn't learned to say "Fire," awakened his father in time for him to rescue members of the family from their burning home. Douglas Boyer kept screaming "Hotty" until he woke his father after an overheated stove had set the house afire. . . . Earl Johnson, chief of the Long Island, Me., Volunteer Fire Department on August 6 swam 100 feet to tow a fire to shore so that the vamps could extinguish it. Blaze was in a 20-foot boat, from which the skipper leaped in fear of an explosion when fire struck. Chief Johnson put out the fire to save boat. . . . In Camden, N. J., Judge John J. Crean of Camden County Court recessed court pronto when fire broke out in the City Hall. Fire on fourth floor, caused by short circuit, was nipped quickly. . . . In Mason City, Iowa, a fire went looking for some firemen. Seems a portable welder caught fire at a local machine shop. The shop owner hitched the welder to the rear of his truck and set out to meet the firemen. Then he saw them traveling down a different street. He took after them. He arrived back at his plant right behind the fire engines. By that time, deponent saith the fire was out (Thanks Jack Kearns). . . . When a three-ton hayload caught fire while Robert Worden of North Hampton, N. H., was traveling a busy highway near Newburyport, N. H., Robert wasted no time dumping the whole load right onto the Newburyport Expressway. Traffic was a bit congested while firemen doused the flaming hay, but Robert saved his truck. . . . Two small children were burned to death early July 6 last when a fire swept a trailer home occupied by five children and three adults at Greencastle, Ind. . . . We're told that firemen of Farmington, Iowa, were thankful when a crook swiped one of the pieces of apparatus. The thief managed to get only three miles out of town when the vehicle's shaft broke. The apparatus has now been repaired and is ready for service. . . . In a certain New York community, the son of the fire chief was arrested, charged with setting two fires causing damage estimated at $100,000.

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carbon dioxide
EXTINGUISHERS
with squeeze grip valve
INSURE INSTANT, DEPENDABLE PROTECTION!
Reach for a Buffalo Carbon Dioxide extinguisher, you're sure of instant, sure-fire action! Each extinguisher is designed to give rugged, dependable service and maximum protection against all hazardous flammable liquid and electrical fires. Operation is extremely simple . . . just point the horn as close to the base of the flames as possible, pull the lock pin and squeeze . . . instantly a clean, odorless, inert carbon dioxide gas is expelled under pressure and snuffs out the flames in seconds!
Buffalo Carbon Dioxide extinguishers are available in 2½, 5, 10, 15, 20, 50, 75 & 100 lb. models, and bear Underwriters' Laboratories, Factory Mutual and Coast Guard approval.
Buffalo squeeze grip valve with open lock, standard on all hand portable carbon dioxide models.
Buffalo's special squeeze grip valve insures instant operation, no lost time or carbon dioxide. They are positively leak-proof and are equipped with a safety disc and recoil preventors for added safety.
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ESTABLISHED 1895
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ORDER BUFFALO
FIRE PROTECTION FROM YOUR
INDUSTRIAL DISTRIBUTOR TODAY!
he's listed in the yellow pages
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the right extinguisher for every fire hazard . . . plus a complete line of brass goods and hose

World-Wide Fire News

Fatal Atomic Plant Metals Blast

Evidence of the hazards introduced by modern metals used in atomic plants (and elsewhere) was given this spring when several drums of a reportedly "obscure metal" used to insulate atomic reactor fuels at a top-secret plant in Oak Ridge, Tenn., exploded, fatally injuring two men and critically injuring a third.

The non-nuclear blast sent dust and black smoke billowing skyward and its shock waves were felt in the city of Oak Ridge, four miles away.

It was explained that the explosion had "nothing to do with any atomic explosion or chain reaction."

The drums of scrap zirconium and zirconium oxide, source of the blast, were being stored under water in 50-gallon drums for reprocessing. Three employees, said to be with the Carbide Nuclear Co. which operates the plant for the Atomic Energy Commission, were standing about 30 feet from the drums at the west end of the AEC's closely guarded Y-12 plant area. The men were moving aluminum scrap to clear a path through the yard to make way for a vehicle when the explosion came.

The exploding drums burned one man so badly he died later that day and so mangled another man that he died the same day. A third man lost a leg and was burned critically.

Information about the cause of the blast was not forthcoming.

FCDA Communications Administrator Gets High Powers

One of the most significant developments of the recent FCDA Operation Alert was the naming of a War Communications Administrator. The Office of Defense Mobilization announced the appointment of Major General Jerry V. Matejka to the post and the redelegation to him of the communications powers of the President under the 1934 Communications Act.

The establishment of the War Communications Administration and the appointment of an Administrator to head the organization, places in a single person the responsibility for the management of U. S. communications in case of a Civil Defense emergency.

The broad powers and responsibilities of the position include the assigning of radio frequencies to government radio stations, directing restoration of wire and radio facilities, safeguarding the security of these communications, suspending or amending the FCC rules as necessary, closure or seizure of radio and wire communication facilities, and authorizing their use or control by any federal agency in order to assist the uninterrupted flow of essential communication.

General Matejka is the Assistant Director of Telecommunications for the Office of Defense Mobilization.

Most Embarrassing!

"It was most embarrassing," said mortified British Fireman Leslie Long of Nottingham, England, showing a charred pair of trousers. "Imagine a fireman catching on fire."

This all happened in August when Long was a participant at a demonstration of fire fighting techniques. The fire fighter got a bit too near some burning oil. His pants began to smoke. It was deuced uncomfortable.

Long shouted for help, but his fellow firemen thought the poor bloke was fooling, pulling their leg, as it were.

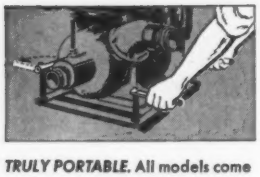
Things were getting a bit hot for Long. But not for long—no sir! Long took a dive into the nearest portable water tank.

From the World News Ticker

It looks like somebody's got a grudge against William Nye of Stafford, England. Or at least Willie thinks so. Within a few hours, he said, one of his small jewelry factories was burned to the ground, someone set fire to his $11,200 sports car, and an attempt was made to set one of his trucks on fire. . . . President Eisenhower has signed the bill permitting the death penalty for anyone convicted of causing loss of life by damaging an

Starts throwing water in less than 30 seconds!

GORMAN-RUPP DUAL FIRE FIGHTER



TRULY PORTABLE. All models come equipped with carrying handles for two-man carry. Weight varies from 160 to 166 lbs. Picture shows handles in carrying position.

Fast action is urgent, when fire strikes. And when the water source is hard to reach, there's nothing more useful to carry on your truck than a Gorman-Rupp Dual Fire Fighter.

In a bare half-minute, water starts flowing through the lines. It can supply water to the truck pumper sufficient to operate two ½-inch nozzles at 100 pounds, or pump directly to the fire.

Gorman-Rupp Fire Fighter Pumps are backed by a positive plain-language guarantee. Ask your distributor for Bulletin 9-FD-11 or write direct.

Model 61½A-23FB	50 GPM @ 110 lbs.
Model 6201 FF	100 GPM @ 80 lbs.
Model 6301 FF	210 GPM @ 40 lbs.

Gorman-Rupp

The Gorman-Rupp Company

305 BOWMAN ST. • MANSFIELD, OHIO

airplane. The law also applies to buses or other commercial vehicles used to carry passengers in interstate or foreign commerce. . . . Workers unloading a lignite train from Czechoslovakia found three containers with explosives among the coal, Kulmbach, Germany, police reported. . . . Spec. 2/C Henry J. Landry, of Dunellen, N. J., has been awarded the nation's highest noncombat award, the soldier's medal. Landry with Sgt. Arthur F. Louro of New Bedford, Mass., rescued a trapped man from a burning building.

International Incident?

According to western New York reports, members of the Lakewood Fire Department may have attended their last international parade with apparatus. Having accepted an invitation to display their renowned rescue truck at a parade in Thorold, Ont., the vamps were somewhat chagrined when arrested by the Ontario Provincial Police for failure to display a license plate on the rescue vehicle. Plates are not required on fire apparatus in New York State.

However, the blow that really hurt was delivered by the United States Customs. Before allowing the apparatus to return to this country, the inspectors held it up for two hours while it was searched from stem to stern.

Coal Mine Fire Traps 243 Men in Belgium

Rescue workers gave up all hope of saving 243 miners trapped more than 2,500 feet below the surface in the Casier du Bois mine, Marcinelle, Belgium, August 8th. The men were cut off by a fire that started when a coal car left its rails and cut an electric cable, causing a short circuit.

Rescue parties testing the air at the 2,500-foot level, 30 hours after the disaster occurred, found carbon monoxide present at a density of two parts in 1,000. One part in 1,000 is generally fatal after one hour exposure.

One rescue team reached almost the bottom of the mine shaft 3,100 feet below ground, but were driven back by the flames and heat that melted their heavy rubber boots. Engineers were reluctant to use much water in fighting the flames for fear of flooding refuge passages.

Strike Closes Telephone Exchange

The Ohio Consolidated Telephone Company restored service at its Cadiz exchange on August 10th. Six other exchanges remained closed because of alleged picketing irregularities. The strike has been in effect for 27 days and according to Vice President R. N. Cole, 19 telephone cables have been cut in the Portsmouth area. The company attempted to maintain telephone service during the strike with supervisory personnel.

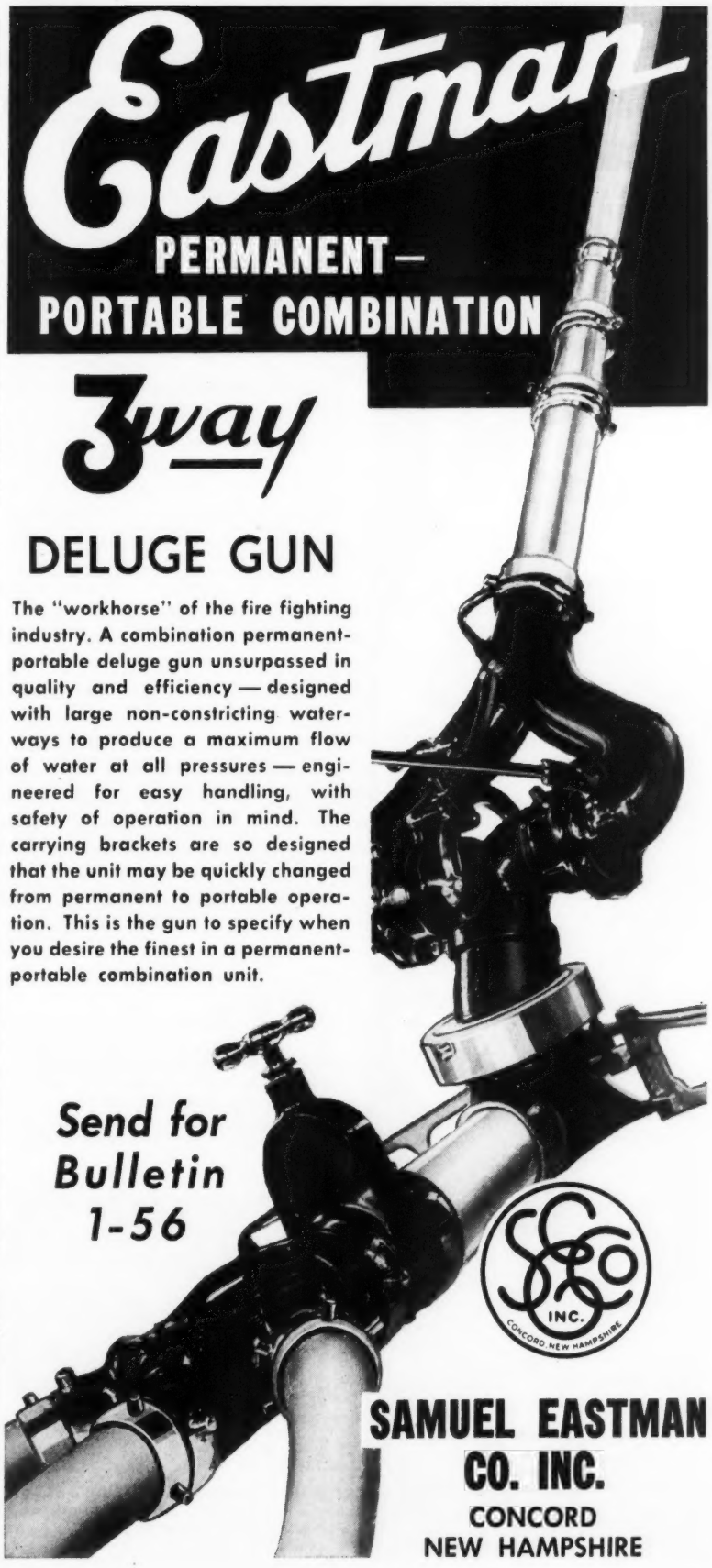
Eastman

PERMANENT—
PORTABLE COMBINATION

3way

DELUGE GUN

The "workhorse" of the fire fighting industry. A combination permanent-portable deluge gun unsurpassed in quality and efficiency — designed with large non-constricting waterways to produce a maximum flow of water at all pressures — engineered for easy handling, with safety of operation in mind. The carrying brackets are so designed that the unit may be quickly changed from permanent to portable operation. This is the gun to specify when you desire the finest in a permanent-portable combination unit.



Send for Bulletin 1-56

SEECO INC. CONCORD, NEW HAMPSHIRE

SAMUEL EASTMAN CO. INC.
CONCORD
NEW HAMPSHIRE

ELKHART'S NEW
SUCTION GATE VALVE
HOLDS BOTH PRESSURE AND VACUUM

No. 86

A completely new screw type apparatus suction gate valve made with 4", 4½", 5" and 6" connections. Has a full 4½" waterway. "O" ring packing for positive seal designed to hold both pressure and vacuum on a large pumper suction inlet. Easily operated under high pressure. Crank type handle with swivel grip for rapid operation.

ELKHART
BRASS MFG. CO., INC.
ELKHART, INDIANA

"More than half a century of fire fighting progress"

Questions and Answers

wherein are answered questions relating to current problems in the fire protection

Hurricane Protection

To the Editor:

Can you suggest the more important steps that I might take to prepare citizens in my city for hurricanes and tornados? It seems to me that no municipality is any longer safe from violent windstorms and I would like to be able to instruct our fire department and our citizens in the best procedures to follow should we be so threatened.

—Chief B. J. C.

Answer: To the fire department, violent wind storms, which are usually accompanied by heavy rainfall, offer serious hazards to life and property. Excellent general advice on how to cope with these hazards is contained in bulletins issued by the National Board of Fire Underwriters from which we abbreviate the following:

The Board considers a soundly constructed home located on high inland ground, and well maintained, as one of the safest places to ride out the tropical storms. It warns home owners however, to store loose materials and movable objects, such as garbage cans and porch or lawn furniture, where they cannot be blown against the building.

Movable awnings should be raised and tied securely, or removed entirely. Trees should be kept pruned away from the structure, because dead branches that may sway against the house are likely to damage it or tear down power or telephone wires.

In seriously threatened areas, windows should be boarded up or storm shutters should be securely fastened several hours before the expected arrival of the storm. Boarding-up should be done with good lumber, the NBFU warns, or it may do more damage than no boards at all.

It is considered advisable to keep one or more windows, on the side away from the wind, open to provide ventilation and prevent wind damage. If the wind or flying objects make an opening on the windward side, wind pressure will build up within the building. Having an opening on the leeward side will allow this pressure to escape, minimizing the interior forces tending to lift the roof or push out walls.

Only small leeward openings are advisable as long as the windward side remains intact. But if windows are broken, additional leeward openings should be provided to equalize the pressure.

Fire danger increases when a hurricane strikes, the Board warns. Emergency cooking equipment should be in good working condition. If it is not serviceable because of long disuse, it may cause a fire that will have an excellent chance to spread if storm-damaged communications delay a fire alarm. Television and radio aerials should be well secured. Low water pressure, another hurricane aftermath, may make fire fighting difficult.

Nozzle Recoil

To The Editor:

Can you settle this question for us? "A" says a strong fire stream striking a solid wall will produce a violent reaction sufficient to throw a man off a ladder. "B" disagrees, claiming there is no more reaction or recoil when a stream strikes an immovable object than there is when it is projected through an open window. Who is right?

—Chief R. G. W.

Answer: "B" is right. For evidence see the report on the Rochester tests described in this issue of FIRE ENGINEERING and pictured below. In the past, claims have been made to the contrary but the tests fail to substantiate them.

Rochester experiment, showing a heavy stream from a ladder pipe mounted on a test structure, striking a big tree. No dynamic reaction whatever was recorded on the dynamometer, thus disproving the old theory that there is nozzle recoil when its stream strikes an immovable object.—*Photo by Warren Y. Kimball, NFPA*

Persons in the News

L. H. Bailke Chief at Muskegon, Mich.

Leonard H. Bailke was appointed fire chief of the Muskegon, Mich., Fire Department, succeeding Chief Wallace F. Gannon who retired on June 30.

A veteran of almost 34 years, Chief Bailke served the past eight years and nine months as assistant fire chief.

In February, 1938, he was promoted to lieutenant; May, 1940, to captain; July, 1947, he was promoted to battalion chief and in September, 1947, he was promoted to assistant chief.

Chief Bailke is a member of the Michigan State Fire Chiefs Association, the Western Michigan Fire Chiefs Association and the International Association of Fire Chiefs.

Carl Dreesen Honored

The Chief of the Bureau of Aeronautics of the Department of the Navy has granted the Bureau's highest civilian honorary award, the Meritorious Civilian Service Award, and a supplemental $300 superior accomplishment award to Carl F. Dreesen in recognition of his important contributions to the improvement of aircraft fire fighting and rescue operations within the Department of the Navy. Mr. Dreesen is a general engineer and is head of the Fire Protection and Crash Fire Section of the Shore Establishments Division of the Bureau of Aeronautics.

In addition to performing his normal duties in a superior manner, Mr. Dreesen prepared the "U. S. Navy Aircraft Fire Fighting and Rescue Manual." This manual provides guidance to field personnel in crash fire fighting techniques under modern aircraft flight operations. Other military departments, commercial companies, airports and aircraft industries are making use of the pattern that Mr. Dreesen has set in the field of aircraft fire fighting and rescue operations.

He has been employed in the Bureau of Aeronautics since February, 1954, transferring to this bureau from the Department of the Air Force. He is widely known among the nation's municipal fire fighters, previously having served as battalion chief in the New York Fire Department.

Chief Cruz Retires; Samio Chief of Manila Fire Department

Cipriano Cruz, Chief of the Manila, Republic of the Philippines, Fire Department retired from active service last April 4, after serving that department for over 38 years.

Chief Cruz joined the department on March 4, 1918, becoming chief on March 1, 1945. In that year, he was sent by the United States Liberation Army in the Philippines to train at the Fire Fighters'

YESTERDAY...
it was fire defense

Then no man could have entered this inferno and lived

BURNING RUBBER
SULPHURIC ACID
NAPHTHA and PARAFFIN
sent up billowing clouds of thick black smoke

Courier-Express, March 23, 1953

TODAY...
It's Fire Attack

Firemen equipped with Scott Air-Paks walked right in and went to work!

YOURS IS A FIRE ATTACK DEPARTMENT IF YOU HAVE SCOTT AIR-PAKS ON EVERY FIRE TRUCK

Thanks to Scott Air-Paks every man who entered the burning Gould Battery Plant had complete breathing protection. This enabled them to remove many barrels of highly inflammable naptha before the fire reached the store room.

Could your men have entered this chemical smoke? Is your department ready? Better equip now with proven Scott Air-Paks. They cut fire losses by getting men in fast for Modern *Fire Attack*. Write for complete details.

VISION UNLIMITED

New Scottoramic Face Mask now available for all Scott equipment, (standard on most models), and for replacement on your present breathing apparatus.

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SAFETY EQUIPMENT DIVISION
SCOTT AVIATION CORP.
215 ERIE STREET LANCASTER, N. Y.
Canada: Safety Supply Co., Toronto — Branches in principal cities
Export: Southern Oxygen Co., 15 West 57th Street, New York 19, N. Y.

School of the U. S. Navy at Pearl Harbor, Hawaii.

In 1947 he was sent by the City of Manila to observe fire prevention and fire fighting techniques in various states of the United States.

Chief Cruz was affiliated with a number of fire organizations in the United States and Europe. He attended the Toronto conference of the International Association of Fire Chiefs in 1953, and on his return trip to the Philippines, visited several leading European fire departments.

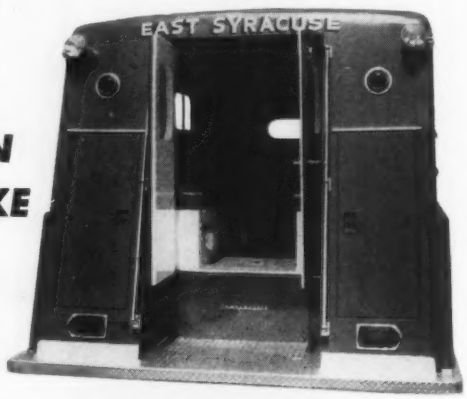
He has been succeeded as chief by Eulogio Samio, who has been deputy chief since 1951. Chief Samio's service dates back to February 7, 1923. He also had the opportunity in 1952 of making a three months' observation tour of fire departments in the United States and Europe.

Perkins Chief of Newton

Frederick A. Perkins, assistant chief of the Newton, Mass., Fire Department since 1952, has been appointed fire chief by Mayor Howard Whitmore, Jr. He succeeds Chief John E. Corcoran who recently retired after 40 years service.

Chief Perkins joined the department in 1937 and is a Navy veteran of World War II. One of his sons, Frederick 3d, is a fire alarm operator with the department.

IT'S ATTENTION TO DETAILS LIKE THESE, THAT EXPLAIN WHY



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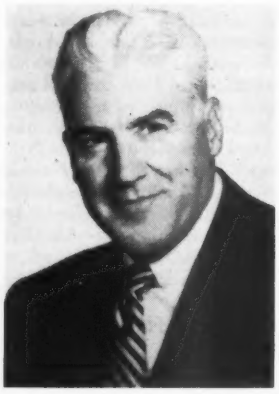
BUILDERS OF SERVICE, CRASH AND LADDER TRUCKS • VOLUME AND HIGH-PRESSURE PUMPERS • SQUAD AND EMERGENCY CARS • STORAGE TANKS

W. B. Burr Joins University of Michigan Extension Service

A veteran Detroit fireman, William B. Burr will head the new state-wide industrial fire control program of the University of Michigan Extension Service.

Mr. Burr who retired on August 10 as a lieutenant after 25 years service with the Detroit Fire Department will aid Detroit and other major metropolitan areas of the state to set up and train industrial fire brigades.



He will also coordinate an annual state-wide industrial fire control seminar and regional schools in industrial fire control.

Mr. Burr's address is University of Michigan Extension Service Office, Rackman Educational Memorial Building, 60 Farnsworth, Detroit, Mich.

Frank Trombley Heads Chippewa County CD

Frank F. Trombley, Sr., former chief of the Sault Ste. Marie, Mich., Fire Department has been named Director of Civil Defense and Disaster Relief for Chippewa County. He succeeds John T. Willis, who retired after six years in the office.

Chief Trombley retired from the Sault Ste. Marie Fire Department in 1951, after 45 years service, 30 of which he spent as its head.

L.A.F.D. Names Public Relations Officer

Battalion Chief Thad Whippo has been designated as public relations officer of the Los Angeles City Fire Department.

In the new position, Chief Whippo will coordinate all public information and press relations for the L.A.F.D. as well as overseeing photography and movie-making activities.

He comes to the job from command of Battalion 9 in the West Los Angeles Area.

Chief William L. Miller pointed out that the new position was created because of the ever-growing need for more and better public relations and information in the fire prevention field.

Cliff Dektar

J. C. Robertson Joins Maryland Fire School Staff

Robert Byrus, Director of the Fire Service Extension Department, University of Maryland, has announced the appointment of James C. Robertson to the Fire Service Extension staff.

"Robbie," as he is known to a host of friends in the fire service, brings to the Maryland fire training program a rich and varied background in firemanship. A graduate of the School of Fire Protection of Oklahoma A & M, he also holds a Bachelor of Science degree in Public Administration from the University of Southern California where he specialized in Fire Administration. For the past two years he has been an inspector with the Factory Insurance Association in several southern states.

A lieutenant in the Coast Guard Reserve, Robbie has served as fire protection officer of the Port of Norfolk and as damage control officer aboard a Coast Guard cutter.

Hugh Halligan Testimonial

More than 900 firemen and friends recently attended a testimonial dinner given in honor of Deputy Chief Hugh Halligan, New York Fire Department, at the Concourse Plaza Hotel.

A senior deputy and veteran of 40 years service with the department, Chief Halligan is widely known as the inventor of several fire fighting tools. He was presented with an oil portrait and a purse.

Deputy Chief P. T. Burke Retires

Patrick T. Burk, assistant superintendent of the New Orleans, La., Fire Department has retired after 52 years service. Chief Burke started his fire fighting career as a horse boy with the New Orleans Fire Insurance Patrol in 1904 and joined the regular department in 1906, rising through the ranks to become second in command of the department in 1946.

Chief Burke served the federal government as a teacher in both world wars, training fire fighters. As a fire prevention expert, he designed the fire walls used to protect the city docks.

Radio-Equipped Army Helmet

A combat helmet developed by the Signal Corps Laboratories at Fort Monmouth, N. J., contains a radio transmitter-receiver unit that weighs less than one pound. Using transistors instead of vacuum tubes, it is smaller than two packs of cigarettes and will allow squad members to converse over short ranges. Where enemy message interception is not important, the range can be increased to one mile by attaching an auxiliary antenna to the top of the helmet.

The April, 1946, issue of FIRE ENGINEERING carried a description of a helmet-style portable transmitter-receiver unit used by the Atlantic City Fire and Police departments.

a NEW 35 ft.

ALCO-LITE

pumper extension ladder

For old and new short wheelbase Pumpers.

The Alco-Lite 3 Section Extension Pumper Ladder offers a lot of length in a minimum amount of nesting space. It has extra heavy, 1¼", deeply grooved rungs which cannot twist, turn, or break off. It is the only aluminum fire ladder on the market that offers a rope and cable arrangement which allows the sections to extend easily and simultaneously. Spring loaded locks operate automatically at any desired point. Always specify Alco-Lite Aluminum Fire Ladders. You can depend on them.

This new Pumper Extension Ladder is available in 30' and 35' models.

Aluminum Ladder Company

WORTHINGTON PENNSYLVANIA

Now . . . You're Fighting An Endless Variety of Gases

When accidents occur, have you an instantly available, effective respiratory apparatus?

For smoke suffocation, gas poisoning, heart attack, asthma, etc., use

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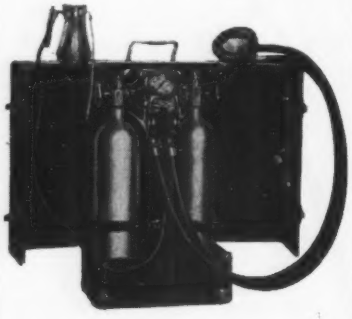

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"Makers of the Harger Drunkometer and Breathalyzer for determination of intoxication by analysis of breath."

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the round table

discussion of current fire department and fire management problems

Calling Off-Duty Firemen

THIS IS THE FOURTH installment of the Round Table on calling off-duty firemen.

The generous response from our readers made it necessary to carry the discussion over to this issue. The editors will welcome any additional comments on the subject, or on next month's subject, which is described in a box on a subsequent page. Address replies to Round Table Editor, FIRE ENGINEERING, 305 East 45th Street, New York 17, N. Y.

Discussion of the Subject

David Williams, Chief, Vinita, Okla.: Off-duty firemen are summoned back to duty by means of the telephone. This method has been very successful so far, as the men are required to notify the officer in charge of the shift if they leave town and also where they are going and if they can be reached by phone. At no time do we allow more than half of the men off shift to leave town at one time.

The recall response has been in the nature of 95 per cent.

Off-shift firemen do not receive compensation for this duty, as it was explained as part of the job when they joined the department.

I feel the men should receive compensation for the extra hours they work, but at the same time, I believe that if the men have their hearts in their work, they won't mind it too much.

Our men are allowed to work on their day off, with the understanding that the job of fire fighting comes first.

We keep one pumper in reserve at all times.

J. J. Martin, Chief, Clarksburg, W. Va.: We call off-duty men by telephone. The response has been very good with 100 per cent of the men responding.

As firemen are subject to call 24 hours a day, they receive no additional compensation for such emergency work.

We have a pumper and an emergency car as reserve equipment.

C. W. Wyrick, Chief, Greensboro, N. C.: The dispatchers on duty are responsible for recalling off-duty men. They have at their disposal a list of off-duty men and the phone numbers where they can be located. Permission to leave town must first be obtained for availability purposes.

This method has proved very successful and a percentage of between 85 and 100 per cent of the men have responded.

Our method has worked very well and since the organization of our Civil Defense auxiliary unit, we have added this group to our call-back list. This has also worked out with good results.

No additional compensation is given according to city rules, but additional time off may be given.

A pumper and a city service truck can be put into service by off-duty firemen if necessary; otherwise they are assigned as standby or relief for men at the scene.

F. E. Saefke, Chief, Fargo, N. Dak.: Our off-duty men are recalled by telephone. Usually we have 99 per cent or better responding to this call.

We have a strict rule that all members subject to call must respond for large fires or emergencies, or have a very good reason for not responding. The men receive no additional compensation.

We maintain reserve apparatus.

Thomas M. Lane, Chief, Alameda, Cal.: Off-duty firemen are recalled by telephone in the event of a large fire. In the past when such occurrence has been necessary, we had about a 50 per cent response.

I believe the men should be paid for this emergency service instead of getting time off.

We do maintain reserve equipment to a minor degree.

Bernard J. Padgett, Chief, Alexandria, Va.: The following procedure applies to recalling off-duty firemen:

"A. Recall cards of all members not assigned to a regular company will be filed at the fire station closest to their homes.

"B. Recall cards of members assigned

THIS MONTH'S QUESTIONS

How do you call back off-duty firemen in the event of a large fire?

How successful has your method been (i.e., what percentage of off-duty firemen have responded in the past to calls for service at large fires)?

What suggestions do you make for increasing such response?

Do off-duty men receive additional compensation for such emergency service?

Do you maintain reserve apparatus in your department to be manned by off-duty men who respond.

NEXT MONTH'S QUESTIONS

Do you find the crowds of inquisitive spectators at fires or other emergencies on the increase? If so, how seriously does this interfere with your fire department operations?

Do you find the public broadcasting and/or televising of fires or other emergencies increase the size of spectator crowds?

Have you taken any action to enlist the aid of radio and/or TV stations to discourage crowd congregation and interference?

What steps would you recommend to curb these crowds of curious sightseers?

to regular companies will be filed at all stations.

"C. Notification to members of recall will be made by telephone only; no messenger service whatsoever will be used.

"D. Company commanders of companies which are in quarters shall, upon receipt of notice to recall the off-duty platoon, immediately refer to recall cards of off-duty members and notify, by telephone, all members to report for duty.

"E. Company Commanders will be held responsible for the proper filing and the proper location of recall cards for all members under their command. Officers in charge of bureaus or special details will be held responsible for those members under their command. In the event of transfers, changes of address or telephone number, it will be the responsibility of officers to see that all members under their command are complying with the order.

"F. Members will be held personally responsible to be in a position to report to duty within a reasonable time, in the event of recall of the off-duty platoon. Members on suspension and sick leave will not respond. Members on vacation or 'day off' in the city of Alexandria who are notified will report to duty. Recall of the off-duty platoon will, in each instance, be followed by reports through channels showing who reported and the time in each individual case. This date will also be journalized.

"G. During recall of the off-duty platoon reasonable meal leaves shall be granted by commanding officers.

"H. Recalled members will, where possible, report to their regular place of assignment. In the event of circumstances prohibiting or seriously curtailing vehicular traffic they will report to the nearest or most convenient engine house, unless otherwise specifically ordered."

Off-duty firemen are not paid for this emergency service.

Clarence H. Green, Chief, Concord, N. H.: In the event of a second alarm, our off-duty men are recalled by tele-

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1-1/2" No. 250 Improved Industrial Fog Nozzle

Underwriters' Approved For Class A and B Fires

REDUCES Water Damage

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phone. Response has been very good, with 90 per cent of the off-duty men responding.

Our men receive no additional compensation for this emergency service.

We do not maintain reserve apparatus.

Samuel M. Ake, Chief, Altoona, Pa.: All captains and key men have an emergency call list with all telephone numbers. They are called by an assistant chief, and in turn, they call their men. The entire off-personnel can be called in about 20 minutes.

This plan has worked very well with 90 per cent of the off-duty men responding.

We could hardly expect better response due to men being sick or out of town, etc.

Our off-duty men receive no additional compensation for such emergency service.

We do maintain reserve apparatus.

Ray L. Wixson, Chief, Ferndale, Mich.: Off-duty men at each engine house have a call list. The dispatcher calls the top man on each list or as far down the list until contact is made. It is up to each succeeding man on the list to keep the chain going. After each man makes contact, he reports to his assigned engine house.

In the daytime approximately 60 per cent of the men respond; in the evening hours, approximately 70 per cent, and from midnight until morning, approximately 95 per cent. These percentages include men on furlough (in some instances men on furlough have responded).

Unless strict rules are adopted prohibiting men from leaving the city without special permission on their leave day, I believe these percentages will be fairly constant. I do not believe in all fairness that much more should be expected.

Several years ago furloughs were increased from 15 days per year to 20 days to compensate for holidays worked and call-back time. No additional compensation is granted.

One pumper is left in reserve on all fires. If this pumper is needed at the fire, it is dispatched to the fire, leaving a minimum crew of men at the engine house. Call is then made to a city in our mutual aid group, which dispatches a pumper to our station for standby service.

O. E. Boegess, Chief, Charleston, W. Va.: Off-duty firemen are called back to duty by telephone and by local radio stations. Approximately 80 per cent of the men respond. We feel this is a satisfactory response.

Off-duty men receive no additional compensation for such emergency service.

We maintain reserve apparatus.

George C. Graham, Chief, Bristol, Conn.: We sound a general alarm from headquarters by shop whistle which is directly connected to our fire alarm system. We have numbered wheels for each fire alarm box. The dispatcher also gets busy on the telephone calling off-duty men.

So far this system has worked well. We get at least 95 per cent of the off-duty men back in the event of an emergency. There are always some men who have received permission to leave town.

A fireman should always leave information at headquarters on how and where he can be reached in the event of an emergency.

Off-duty firemen are not paid extra for general alarms of fire. They are paid at the rate of $1.50 per hour for all other emergency duty such as floods, roots, etc. After July 1, 1957, the hourly rate will be increased to $1.65.

Two 1,000-gallon pumpers fully equipped are maintained as reserve apparatus.

Edward F. Crowley, Chief, Belmont, Mass.: Off-duty men are recalled by audible signals and the telephone. About 95 per cent of the men respond.

Off-duty men receive no additional compensation for such emergency service.

We maintain reserve apparatus to be manned by off-duty men who respond.

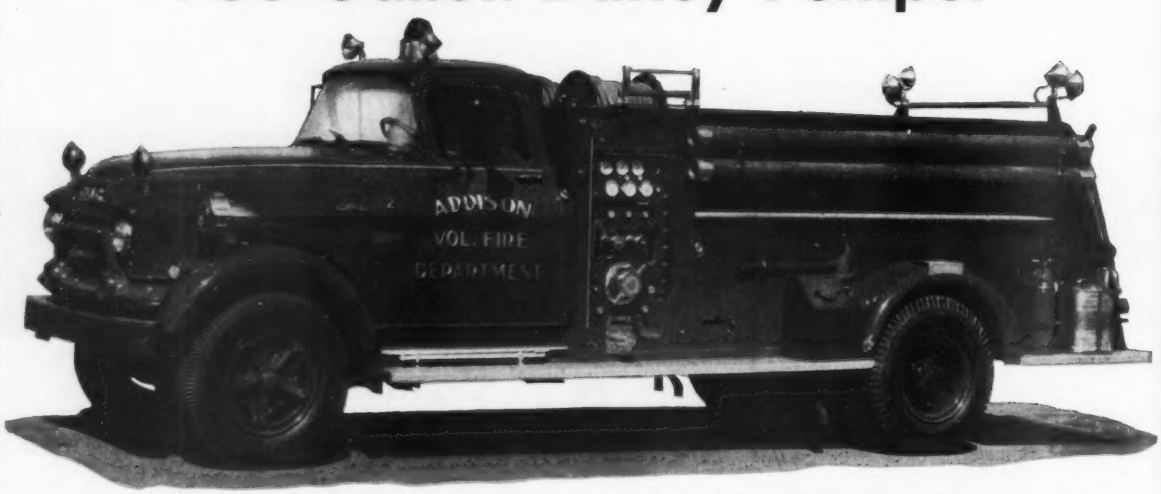
E. W. Heller, Chief, Ann Arbor, Mich.: Off-duty men are recalled by telephone in the event of a large fire.

We get about a 75 per cent response.

I believe such response could possibly be increased by paying the men for this emergency service.

We maintain reserve apparatus.

750 Gallon Darley Pumper



The pump is the Darley Champion Type SH750 manufactured exclusively by W. S. Darley & Co. and used on all Champion Fire Apparatus. A 3-stage centrifugal with superior engineering features which guarantee brilliant performance throughout the entire range of pumping requirements for fire fighting.

The SH Series Champions are double duty fire pumps which provide the complete range of volume performance for heavy streams plus the fire smashing efficiency of high pressure fog with 60 gallons per minute at 850 lbs. of pressure at the pump. Actual tests show the SH pump develops pressure to 1,000 lbs.

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You'll want to know all about our low cost finance plan or combination PURCHASE-RENTAL plan.

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FACTORIES — Chicago and Chippewa Falls, Wis.

Charles R. Dorman, Chief, Jamestown, N. Y.: Off-duty captains are called by the fire alarm operator when so ordered by the chief or assistant chief in charge. The captains call the members of their company or have some member of the family do so.

Our method has proved very satisfactory with a response of about 90 per cent.

I know of no practical way to increase this response.

Off-duty men receive no additional compensation in a monetary way. At least two hours' working time is given for response to off-duty calls at the convenience of the company.

We maintain three pieces of reserve equipment fully loaded with hose which off-duty men bring to the fire scene when picking up their gear at the station.

Peter C. Kenny, Sr., Chief, Bayonne, N. J.: Off-duty firemen are recalled by nine blasts on Civil Defense sirens. Six blasts on the siren calls police.

We get about a 90 per cent response of off-duty firemen, and find our system very efficient.

Credit is always considered when any member seeks time off.

Three 1,000-gallon pumpers are maintained as reserve apparatus in three different sections of the city. Off-duty men report to those houses first.

J. P. Caldwell, Chief, North Little Rock, Ark.: Off-duty men are recalled by telephone, radio and television. In the event the men cannot be reached otherwise, a police squad car is dispatched for them.

This method of recall is very successful, and we get approximately 90 per cent response.

Off-duty men receive no additional compensation for such emergency service.

Two 750-gallon and one 500-gallon combination pumpers are maintained as reserve equipment and are in readiness at all times.

G. Napoleon Guevin, Chief, Manchester, N. H.: Off-duty men are recalled by short wave radio on department frequency and individual tickers connected to the fire alarm system.

We have been very successful; approximately 95 per cent of off-duty firemen respond.

Men are not paid for this emergency work.

We have a reserve pumper in the department which is put into service if needed.

Dan Abernathy, Chief, Joplin, Mo.: We call off-duty men by phone, or if necessary, a police car will pick them up.

About 80 per cent of off-duty firemen respond.

They do receive additional compensation for such emergency service.

Reserve apparatus is maintained by this department.

J. F. Romeo, Chief, Albany, Ga.: Each man is required to have a telephone. Where the officer in charge deems it necessary, he has the off-duty men called.

Men receive no additional compensation for such emergency service.

Reserve apparatus is maintained for use by off-duty men.

L. L. Geisler, Chief, Johnson City, Tenn.: Each member has a telephone in his home. Companies staying in call off-shift men. We also have a large siren which is sounded in the event of a large fire. This method is very good. At least 75 per cent respond.

We hope to install short wave receivers in each fireman's home in the near future.

Off-duty men receive no additional compensation for this emergency work.

We maintain both reserve pumpers and ladder trucks.

Carl A. Cain, Chief, Fayetteville, N. C.: Each fireman is required to have a telephone. We let our men pick up extra jobs and they leave the telephone number with dispatcher as to where they will be. I believe we can keep up with them better this way. If they were not picking up extra money, they might be out of town when called.

We get a response of about 95 per cent.

The men are not paid for this emergency service.

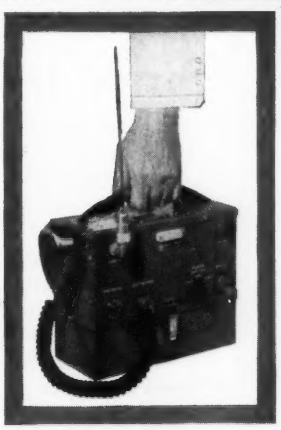
Reserve apparatus is maintained.

Announcing the Model H/M

PAK-FONE

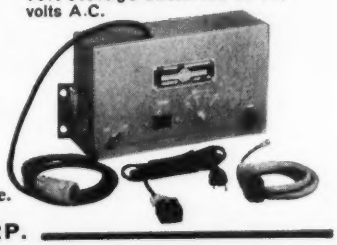
2-WAY RADIO

- HAND-CARRIED. EXTREMELY COMPACT.
- BUILT-IN LOUD SPEAKER. CONVENIENT MONITORING.
- RELAY SQUELCH. SILENCE BETWEEN CALLS.
- CONNECTOR FOR POWER SUPPLY. SAVES BATTERIES.
- WITH UPC-100, OPERATES FROM 6, 12, 24 VDC AND 117 VAC.
- ON-OFF INDICATOR LIGHT. AVOIDS RUN-DOWN BATTERIES.
- TOP PERFORMER IN ALL COMPETITIVE TESTS.
- A HEIMARK DESIGN. FCC AND FCDA DESIGNATIONS.



Industrial Radio Universal Power Converter UPC-100

New power supply operates Pak-Fone and other portable 2-way radio equipment from 6, 12, and 24 volt storage batteries or 117 volts A.C.



The Model H/M Pak-Fone is being widely accepted by Police and Fire Departments because it does not require holding a handset to the ear. Also, the annoying "rushing" characteristic of other hand carried portables on standby is eliminated by the use of a relay squelch.

Write or wire today for a demonstration in your community or send for literature.

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Since 1879

Firemen the world over rely on Braxmar for the finest badges money can buy. We offer the widest possible selection in nickel, chrome plate, sterling silver, gold plate, rolled gold and solid gold; all of our badges and insignia are the work of experts with a lifetime of service.

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New York 17, New York

MANUFACTURERS' NEWS

Continued from page 758

When the transmitter, mounted on the emergency vehicle is turned on, a super-high-frequency signal is immediately turned up to a quarter of a mile ahead of the vehicle. As the vehicle approaches the Natecs-controlled intersection the transmitted signal is detected by a receiver mounted on the traffic signal and is relayed to the pre-emptor unit, located at the intersection control box. At this time the pre-emptor assumes command of the traffic signals in a predetermined pattern. Simultaneously the interrogation light facing the oncoming emergency vehicle is turned on by the pre-emptor, assuring the driver, that Natecs has established control of the intersection. If two or more emergency vehicles approach the same intersection from different directions, the interrogation light which faces the direction of the first vehicle approaching the intersection will remain steady but will flash on and off in the direction of the second vehicle telling that driver to proceed with caution.

An adjustable hold relay maintains the emergency control of the intersection for a predetermined time after passage of the emergency vehicles. Upon release, the traffic signals are returned to their normal operation and traffic will move as usual.

H. L. Kociencki Joins Marlow Pumps

The Marlow Pumps Division of the Bell & Gossett Company has announced the addition of Harry L. Kociencki to its sales staff at the Midland Park, N. J., office. Mr. Kociencki graduated from Stevens Institute of Technology in 1954 with a M.E. degree. He was formerly an application engineer in the vertical turbine pump division of the Worthington Corporation.

Mr. Kociencki will handle contacts with dealers and distributors from the Midland Park office.

Four Wheel Drive Shows Sales Increase

Profits and sales of the Four Wheel Drive Auto Company of Clintonville, Wis., increased sharply during the 1956 fiscal year which ended June 30, according to the company's annual report. Profits rose to $577,176 or $1.92 per share of capital stock and sales climbed 42 per cent above the 1955 figure to $18,272,996.

Unfilled orders as of June 30, 1956, were approximately $11,450,000 including $2,150,000 scheduled for delivery subsequent to September 30, 1957.

Wayne Buys Miller

The A. J. Miller Company of Bellefontaine, Ohio, builders of ambulances, has been purchased by Wayne Works, Inc., Richmond, Ind., it has been announced by Harold Drimmer, chairman of the board of Wayne and R. N. MacCracken, president of Miller.

The Miller firm is the second ambulance manufacturing concern purchased recently by Wayne, large manufacturer of bus bodies. The Meteor Motor Company of Piqua, Ohio, manufacturer of fine coaches, became a division of Wayne in 1954.

Newton Glekel, president of Wayne Works, Inc., announced the promotion of F. W. Hall as executive vice president and general manager for all Wayne divisions, and Harvey J. Morse as vice president and division manager of the ambulance operations.

Bridges Now with Safa

Frank R. Bridges, formerly manager of engineering and chief engineer of the Gamewell Company, has joined the Fyr-Fyter Company, manufacturers of fire communications and portable fire protection equipment.

Mr. Bridges has been named vice-president in charge of manufacturing for the Safa Alarm Division, Inc., according to an announcement by Don O. Wood, president.

Virginia Rescue Squad Acquires Superior-Cadillac Ambulance

Proud members of the Herndon Rescue Squad, Herndon, Va., prepare to drive home their new 1956 Superior-Cadillac ambulance from the Lima, Ohio, plant of the Superior Coach Corporation. The new emergency coach is Superior styled, with limousine body finished in gray and red. Completely equipped for emergency service, the unit is now serving Herndon and Fairfax County, Va.

Gamewell Appoints Two to Sales Posts

The Gamewell Company of Newton, Mass., has announced the appointment of two long service executives to key sales posts, according to Grenfell A. Swim, executive vice president.

Robert B. Allen will head the newly organized Signal Division of the company as sales manager. The Signal Division now handles sales and service of all fire alarm systems and equipment, municipal as well as the new Flexalarm fire detection and alarm system for industrial plants and public buildings.

A second sales post was created with the naming of Herbert L. Gray to the position of advertising and sales promotion manager. Mr. Gray joined Gamewell in 1927, serving in field sales and engineering and as special sales department administrator.

W. B. Overhulse Joins Stephenson Corp.

Walter Bryan Overhulse, South Gate, Cal., has been appointed western representative of the Stephenson Corp., Red Bank, N. J. Mr. Overhulse is a pioneer in the use of automatic resuscitation equipment and has been a familiar figure at western fire schools and conferences since 1936.

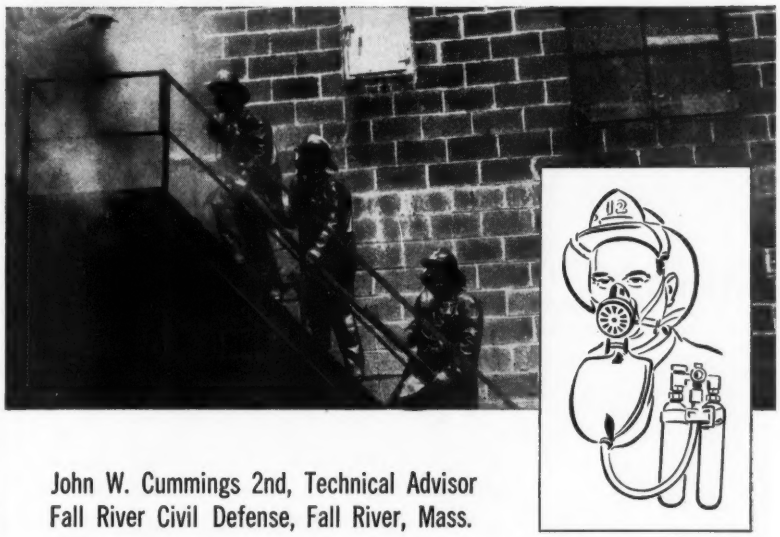
His territory includes the states of California, Oregon, Washington, Montana, Idaho, Utah, Nevada, Wyoming, Colorado, Arizona, New Mexico and western Texas, which he covers by airplane.

Ansul Introduces Pressurized Water Extinguisher

A new stored-pressure water fire extinguisher has been introduced by Ansul Chemical Company, Marinette, Wis. It has a 2½-gallon capacity; Underwriters' Laboratories classification of 2-A.

Features of the new unit include shut-off control; no bouncing or inverting needed to activate it; water stream re-

Fall River Fire Department uses life-saving *Pocketaire* breathing apparatus



John W. Cummings 2nd, Technical Advisor
Fall River Civil Defense, Fall River, Mass.

says: "Your masks have made possible seven rescues and a number of reconnaissance and ventilation tasks in heavy smoke and sulphur dioxide. Lawyers, judges and juries seem to value a life at $7500. Seven lives at $7500, $52,500, a handsome return on the price of two masks.

Fall River Civil Defense bought three masks in 1954 and six in 1955. These masks are in service in the Fire Department. It intends to purchase a substantial number more.

It has been interesting to note that in smoky fires, when unprotected men have been knocked out or reduced to copious tears, men wearing "Pocketaire", without goggles, have experienced little or no lachrymation and *no after effects.*"

Seconds count when human life is at stake, and Pocketaire is on the man and in action in only seven seconds. A compact, lightweight unit, it is unequalled for speed of operation and complete breathing protection. Its high standards bring together all the essentials of a practical, self-contained breathing apparatus — light weight, small size, low cost (from $100 up), inexpensive refills, and absolute safety.

Write for free literature or demonstration

THE CYCLE-FLO COMPANY
984 BRIDGEPORT AVENUE • MILFORD, CONN.
Canada: Wilson & Cousins Co., Toronto, Ontario
Export: Ward LaFrance International, Elmira, N. Y.

Write for Bulletin 6600-F

MORE *EFFECTIVE* FIRE PROTECTION
CITY • RURAL • FOREST

MODEL 6600 PUMPER—Instantly Self-Priming—No waiting when seconds count
HIGH PRESSURE—Use one or two hard-hitting streams or fire-blanketing fog-spray
LIGHT WEIGHT—Easily carried to source of water or fire area
NEOPRENE IMPELLERS—Pump dirty water as well as clean water—assure long life
POWER—Efficient 4-cycle, air-cooled 5 HP engine known and serviced world-wide
BY-PASS VALVE, SPRING LOADED GREASE CUP, NO LOSS OF PRIME, PLUS MANY OTHER FEATURES

WEIGHS ONLY 110 LBS.

UP TO 40 GPM AT 150 PSI

MARINE PRODUCTS COMPANY
515 LYCASTE AVENUE • DETROIT 14, MICHIGAN

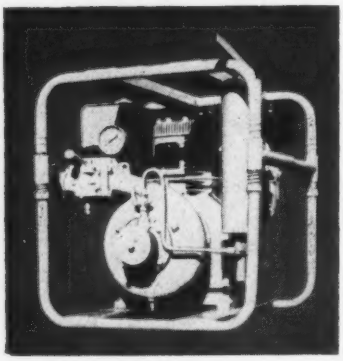
Fight Brush Fires From Moving Truck with a Hale Type FZZ PORTABLE PUMPING UNIT!

Picture below shows fire-fighter handling stream from a Hale Type FZZ Portable Pumping Unit mounted on a moving truck. An FZZ can be mounted permanently on truck or carried as a portable unit for pumping into or *from* booster tank. This portable arrangement is extremely useful both for fighting brush, field or forest fires while in motion; or for pumping from pond, stream or well direct.

An FZZ will supply from draft 2 capable fire streams thru 1½" lines. Performance substantially exceeds NBFU and NFPA capacity and pressure requirements.

A frame-mounted FZZ (with carrying handles turned in) is pictured at right. Also available mounted on two wheels or on rubber-cushioned steel channels. Note: Discharge Adapter can be supplied for use with 2½-inch hose.

**Write today for new FZZ Folder.*
Let us know if you want a demonstration.

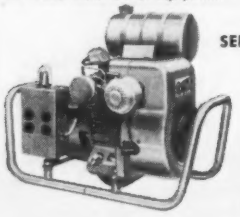


HALE FIRE PUMP CO.
Conshohocken, Pa.
Fire Pumps in All Standard Capacities

NOTE:
FZZ Now Has NEW—
- Ball-Type Valve
- Improved priming

1. Carry them by hand right up to the fire...operate power tools and lights.

2. Mount them on rigs to power searchlights and other motor-driven equipment.



SERIES 105AK
1,500 watts;
125 pounds

ONAN Electric Plants help you fight fires all 3 ways!

ONAN portable models combine light weight with 4-cycle quick starting, long life and all-around dependability. Quick release bases are available on many models permitting instant removal of the units from fire rigs. Onan Standby Plants from 1,000 to 50,000 watts assure electric power for fire stations, headquarters departments and radio communications. Air-cooled models can be equipped with Onan's exclusive Vacu-Flo cooling system allowing installation in closed rooms or compartments.

3. EMERGENCY STANDBY POWER
Installed in the fire station or department, they supply all electricity required when power is interrupted.

Write for Folder on fire department models

D. W. ONAN & SONS INC.
3032 Univ. Ave. S. E., Minneapolis 14, Minn.

leased by operating squeeze-grip carrying handle; water stream, supplied by full capacity air pressure from start to finish, has range of 35 to 40 feet. Extinguisher can be quickly recharged by replacing the water and pressurizing the unit to 100 psi at any source of compressed air. A tri-color pressure gauge indicates the air pressure for effective discharge.

With anti-freeze added, the new extinguisher will operate properly in temperatures down to −40 degrees F. It is available in three shells, stainless steel, brass and chromium plated brass.

Tank-Type Engine Preheater

Zero-Start, a new external tank-type engine preheater announced by Phillips Mfg. Co., Inc., 2816 Aldrich Avenue S., Minneapolis, Minn., is designed to keep fire department vehicles operating in winter weather by eliminating freeze-ups and hard starting.

It comes in two models, standard for autos and light trucks and heavy-duty for heavier trucks such as fire apparatus. The product incorporates a new extruded type, heavy capacity element said to insure rapid warm-up and long life. Circulating coolant within 20 seconds, the heater moves warm water throughout the entire block and into the cab heater. It operates off any 115-volt AC/DC current supply and is rated at 850 (standard) and 1300 (heavy-duty) watts.

For complete details, address the company, Department KP.

Electronic Robot Controls Traffic for Fire Runs

The City of St. Louis, Mo., is experimenting with robot switchmen to clear street crossings for the use of fire trucks and other emergency vehicles. The St. Louis Fire Department, it is reported, has tried out these electronic devices which automatically switch all nearby traffic lights to red when the driver of an emergency vehicle sends out a radio signal from his fire truck.

Director of Public Safety Sestrick reports the device has received a warm welcome, his city reportedly being the first of its size to experiment with it.

Each sending device, which is mounted

on the emergency vehicle, costs about $300. It would cost St. Louis about $30,000 to equip its 100 fire rigs. It is said this amount is about what accidents at street intersections have cost in the last few years in damage to fire apparatus.

In addition, it would cost about $390 per intersection to install the electronic receiving equipment that brings traffic to a halt by switching all four lights to red.

The device in question, known as "El-Tec," is manufactured by Electronics Protection, Inc., 2085 Hawthorne Avenue, Melrose Park, Ill.

The company has issued a pamphlet "El-Tec Electronic-Traffic Emergency Control" (Form EPI-656), available on request.

High-Power, Low-Band Two-Way Radio

Three high-power, low-band mobile FM radio systems, including the first RCA two-way radio equipment engineered for a power output of 100 watts, are announced by the Radio Corporation of America. The new systems are designed to provide extended and improved coverage and more economical operation in low-band radio communication from 25 to 54 megacycles.

Warren Heads Fyr-Fyter Sales

The promotion of Paul R. Warren to general sales manager of the newly-created Fyr-Fyter Division has been announced by the Fyr-Fyter Company.

Mr. Warren will supervise sales of portable fire extinguishers and wheeled engines produced at the Dayton plant. He will also be in charge of sales of all Fyr-Fyter accessory products including fire hose, nozzles, couplings, air masks, resuscitators, fire hose and extinguisher cabinets.

General Detroit Appoints Clark as Vice President—Sales

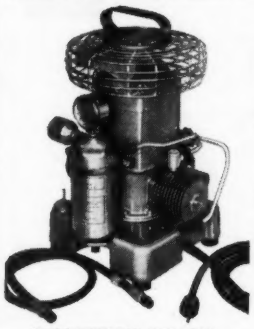
The General Detroit Corporation has announced the appointment of George F. Clark as vice president in charge of sales.

Mr. Clark leaves the position of vice president and general manager of the General Fireguard Corp. Ltd., which is

...in heaviest smoke and toxic gases...

BREATHE FRESH, PURE AIR!

Your best personal protection in atmospheres filled with deadly gases is fresh pure compressed air.



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HIGH PRESSURE AIR COMPRESSORS AND AIR PURIFIER provide breathing quality "country fresh" air. Ask your distributor for a demonstration or write for *new* catalog and photo of a typical installation.

The Cornelius Company

Model 130R1500 (3000 PSI) Height 17" Weight 38 lbs.

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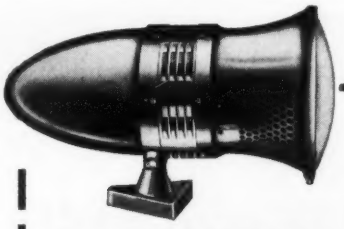


MODEL 20 SIRENLITE for Emergency Vehicles

Siren sounds a penetrating warning, red light automatically flashes authority. Traffic opens instantly, day or night. FREE ROLLING feature.

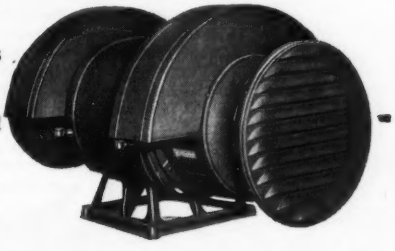
STERLING SIRENS

- HANDSOME
- RUGGED
- RELIABLE

Built by proud craftsmen to the highest standards of precision manufacturing . . . utilizing materials of finest quality . . . Sterling Sirens give year-after-year of unsurpassed dependability and satisfaction.

MODEL 20 SIRENLITE FIRE ALARM SIREN for Volunteer Systems

Quick acceleration, power-plus . . . Model M really gets the boys out in a hurry! Used by championship companies from coast to coast. A dependable, heavy-duty siren built of the finest materials throughout.



Complete line of Siren Equipment • *Bulletin on Request*

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CRYSTAL CONTROLLED

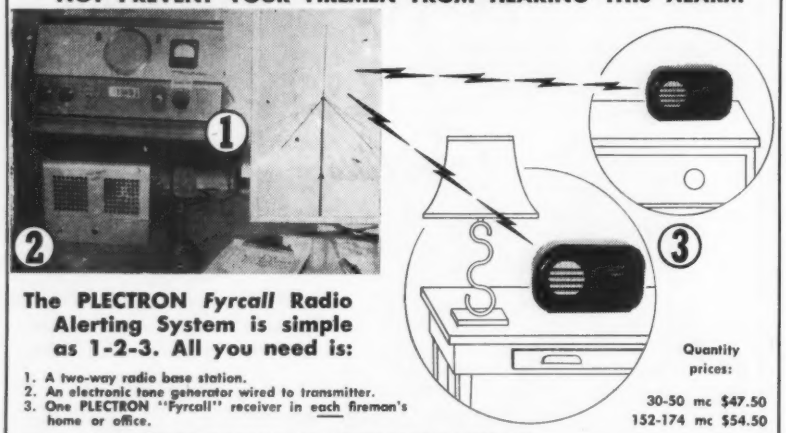
PLECTRON *Fyrcall*

TONE OPERATED

HIGH FREQUENCY RADIO FIRE ALARM RECEIVER

- No outside antenna required.
- 2 miles range with high voice volume.
- Activating tone also serves as alarm.
- Becomes silent 30 seconds after tone.
- *Crystal* frequency control.
- 5 tubes and rectifier.
- 110-120 volts, 27 watts.
- 6¾ in. x 11 in. x 7 in.

WIND, TELEVISION & TIGHT INSULATED HOUSES WILL NOT PREVENT YOUR FIREMEN FROM HEARING THIS ALARM



The PLECTRON *Fyrcall* Radio Alerting System is simple as 1-2-3. All you need is:

1. A two-way radio base station.
2. An electronic tone generator wired to transmitter.
3. One PLECTRON "*Fyrcall*" receiver in each fireman's home or office.

Quantity prices:
30-50 mc $47.50
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Write: **PLECTRON CORPORATION** Overton, Nebr.

DON'T SPECULATE-
...STEP UP
YOUR EFFICIENCY!
The accelerated tempo of modern times demands modern techniques plus stepped-up efficiency. Fire departments everywhere find the Super Vacuum Smoke Ejector provides the extra margin of efficiency necessary in modern day fire fighting. New and revolutionary in design, Super Vacuum will outperform other fans twice its size... gives the positive, controlled ventilation essential to the prompt, efficient control of fires.
CONTROL VENTILATION
...CONTROL FIRES!
The heart of the SUPER VACUUM Smoke Ejector is the patented propeller. Conventional fans produce a chopping, recirculating action. In contrast, the SUPER VACUUM propeller is a perfect spiral air screw which creates a vacuum...suction is created over the entire face of the propeller and the air or smoke is discharged in a high velocity spiral. There are no dead spots.
THE HEART OF THE SUPER VACUUM
WRITE FOR ADDITIONAL INFORMATION OR CONTACT YOUR LOCAL FIRE EQUIPMENT DEALER
MANUFACTURED BY
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the Canadian subsidiary ot tne General Detroit Corp., to join the parent company.

He started with General Detroit in Toronto in 1946 as factory sales representative, was elevated to Ontario branch manager in 1948, then to general sales manager in 1950, general manager of the Canadian operation in 1952 and vice president in 1955. He will retain this office in an advisory capacity.

DUAL PUMPER OPERATIONS

Continued from page 746

line for the initial attack and a total of four 1½-inch hose lines from each wagon for a follow-up. Control of pressure for the hose lines is at the wagon pump near the fire with the pumper maintaining a constant pressure.

The 2½-inch hose lines, or heavy duty devices, can be placed in service very quickly with the addition of more intake lines, if necessary, from the pumper. By locating a second pumper at the close hydrants, the intake hose lines to the wagons will be short and the gpm potential would be increased to a maximum.

2. The conservation of hose used at large fires. With shorter hose lines the same amount of water can be put on the fire with a smaller number of hose lines.

3. The increase in speed by which additional alarm companies can get into service to supply heavy duty devices.

4. The reduction of operational area occupied by fire apparatus at fires. This provides for more efficient operation and communication. Less traffic is stopped, with less inconvenience to the public, since fewer streets are blocked.

5. All these advantages add up to more economical operation of the fire department and reduction in fire loss. All of which represent a saving to the taxpayer.

Dual pumper operation is not without some problems:

1. Extensive training to educate fire department personnel in the dual pumper operation, since pump capacity, fire fighting demand, amount of water available, and the distance from the fire area are all related factors in determining when to connect the second pumper to a hydrant.

2. The cost of equipping older types of apparatus with 4½-inch gates for the most efficient use of dual pumper operation. For several years, new apparatus of our department have been equipped with 4½-inch gated front and rear suction intakes in addition to the side intakes. Until such time as all the pumpers are equipped with 4½-inch gated intakes, a 2½-inch gated intake would be used.

In conclusion, economies and increases in efficiency in the administration and fire fighting of a fire department are dependent upon application of impartial, thorough research, analysis and study and the adoption of policies and programs based upon logical and common sense interpretation of the information gathered. □□

Obituaries

Richard W. Joyner

Richard W. Joyner, a familiar figure at conferences of the International Association of Fire Chiefs, and one of its oldest members, died on August 30 in Dallas, Tex., where he had lived for a number of years. He was 76 years of age.

Mr. Joyner was born in Atlanta, Ga., on February 7, 1880. His father, W. R. Joyner, was appointed chief of the Atlanta Fire Department in 1885, the year the younger Joyner attended his first national convention, that of the National Association of Fire Engineers at Long Branch, N. J. In 1887, at the age of seven, he was made an honorary member of that association (later to become the International Association of Fire Chiefs). His father was elected president of the organization in that year and served two additional terms in 1903 and 1904.

In 1909, Mr. Joyner joined the Southern Division of the Eureka Fire Hose Company. In January, 1911, he was made manager for the Dallas territory and while in that capacity was also assigned as manager of the Los Angeles and Denver offices. He remained with Eureka until his retirement in 1946.

In 1944, the Grand Rapids Conference of the International Association of Fire Chiefs elected him to Honorary Life Membership.

W. G. Burns, Dallas Fire Marshal

Chief William Grady Burns, fire marshal of the Dallas Fire Department since 1947, died on July 29. A member of the department since 1924, Chief Burns had been instrumental in developing Dallas' fire prevention activities.

Chief Burns was public relations officer for the Dallas Department, first vice chairman of the Fire Marshal's Section, National Fire Protection Association and an instructor at the Texas Firemen's School held annually at Texas A & M College.

Chief Emil Johnson of Boulder, Colo.

Fire Chief Emil A. Johnson, 68, of the Boulder, Colo., Fire Department, died suddenly of a heart attack on August 23, almost on the anniversary of his wife's death on August 27, 1955.

Chief Johnson joined the Boulder Fire Department on October 1, 1906, and was appointed captain in 1909. In 1912, he was made assistant to Chief Will W. McAllister whom he succeeded as chief on his retirement in 1916.

Chief Johnson saw the Boulder Fire Department modernized and at his death he was working to add new fire stations and facilities to the already progressive organization. He was recognized as an able leader and was active in civic affairs as well as in the nation's fire service councils.

He was past president of the Missouri

For MAXIMUM PROTECTION

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SPECIFY: GARDWELL SALVAGE COVERS and BLANKETS

ASBESTOS — For flames or intense heat.

FIRE RESISTANT DUCK — For arc and spot welding spatter and minor hazards. Specially treated to resist oil, water and mildew.

SYNTHETIC IMPREGNATED DUCK — For water or chemical splash only.

LIGHTWEIGHT 3M ALUMINIZED ASBESTOS OR DUCK — Industry's most efficient heat reflecting fabric.

GARDWELL Salvage Covers & Blankets are made to order in any size — Furnished with Grommets or Hemmed for Hanging.

FIRE BLANKET CONTAINER
Just pull the release — blanket drops out instantly!

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Specify HALE

Why do users of Hale Fire Pumps specify "Hale Pump" when they buy new apparatus?

Because these men have learned through practical experience HALE VALUE in terms of:

• Dependability • Flexible Performance • Efficiency

For 41 years Hale-equipped Fire Pumpers have upheld a high standard of dependability . . . a dependability that has won the respect of users all over the world. Hale Fire Pumps are sold only through Manufacturers of Quality Apparatus.

FEATURES
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- Reliable
- Rugged
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Write today for NEW FOLDERS on Hale Fire Pumps . . . built in all standard capacities.

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CONSHOHOCKEN, PA.

The "NEW YORKER"
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A national standard for a hundred years.

Other Leather Helmets in other weights, in regulation and drop brim style.

CAIRNS LEATHER HELMETS

The Least Expensive
Because
They Last the Longest

Write for Catalog 351

CAIRNS & BRO., INC. - Allwood, Clifton, N. J.

Outfitters to Firemen Since 1836

STRETCHERS

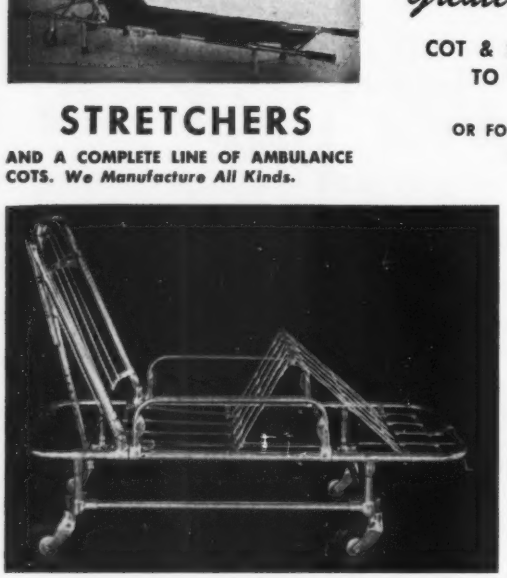
AND A COMPLETE LINE OF AMBULANCE COTS. *We Manufacture All Kinds.*

WASHINGTON

Greatest Name in Cots

COT & STRETCHER EQUIPMENT TO FIT ANY VEHICLE.

OR FOR ANY FIRST AID ROOM REQUIREMENTS.



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offers exclusive features not available in any other cot! The cot can be carried properly, no need to keep head low and foot end high. It easily shortens from 75" to 52", for easier turning, and at the same time patient is made more comfortable. Both patient and mattress stay in place without straps or holding, no matter how steep the carrying angle. The patient is more completely relaxed, feels more secure, with no fear of falling! A simple hand crank raises the bed section under the patient's knees, as the cot length is shortened.

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Valley Association of Fire Chiefs, past state vice president of the International Association of Fire Chiefs and active in the Colorado Association of Fire Chiefs and the Colorado Firemen's Association.

District Chief J. F. McFadden

District Chief James F. McFadden of the Boston Fire Department collapsed on the morning of July 31 in the office of A. Bruce Bielaski, assistant general manager of the National Board of Fire Underwriters in New York City. He was sped to Beekman Hospital where he died.

Chief McFadden was accompanied on his visit by the Rt. Rev. Msgr. Henry O'Connell, fire chaplain of Boston. They were in the city for a conference with John Neale, chief engineer of the Board.

LAFD Officers Train to Detect Radiation

A group of Los Angeles Fire Department captains recently began instruction in a program of radiological detection training.

A LAFD spokesman said the program was designed to train personnel in combating runaway radioactivity in both war and peace. However, he said, the LAFD is more directly and imminently concerned with fire fighting operations in institutions using radioactive atomic energy for peaceful purposes.

The initial drill was carried out in the city's civilian defense training area in Chavez Ravine. Live radioactive cobalt bombs were planted on a hill slope in an area of about one acre. Proceeding on the assumption that a nuclear weapon burst had occurred over the area 12 hours earlier, the fire captains used ionization chambers and a complex system of charting to determine radiation-free passageways for themselves and equipment.

The participants, 35 officers of the rank of captain, were drawn from all battalions of the LAFD and operated in three teams of four members each on the field with the rest in the control room.

Supervising the program was Chief Arthur F. Fowler who is in charge of civil defense and disaster for the LAFD. Captain Noble A. Swanson was in charge of the field operations.

Paul C. Ditzel

Paterson Fire Department to Handle Water Mishaps

The Fire and Police Commission of Paterson, N. J., has designated the fire department as the proper agency to be called to handle drownings or other water mishaps. The commissioners took action in the matter in order to prevent confusion.

Rules were issued designating the ranking fire officer present as the officer in charge. All emergency equipment necessary for water rescue work was ordered placed in the possession of the fire department.

Schools and Conferences

Sept. 20-22—**Westchester County Volunteer Firemen's Association.** Annual meeting and parade, North Tarrytown, N. Y. Secretary, John R. Bailey, Box 1, Baldwin Place, N. Y.

Sept. 25-28—**Michigan Fire Inspectors Conference.** Annual meeting, Michigan State University, East Lansing, Mich. Secretary-Treasurer, Michigan Fire Inspectors Society, c/o 33110 Five Mile Road, Livonia, Mich.

Sept. 26-27—**Maryland Fire Brigades Association.** Annual meeting, Towson, Md. For information, contact Chief A. P. Orban, Baltimore County Fire Department, Towson 4, Md.

Sept. 27-30—**Berks County Fire Training School.** Annual meeting, Wyomissing, Pa. Secretary-Treasurer, Adam Ed. Baer, Jr., 373 Sunset Road, West Reading, Pa.

Sept. 30—**Nebraska State Fire School.** Regional meeting, Atkinson, Neb. Director, Otto B. Johannes, 2604 - 12th Street, Columbus, Neb.

Oct. 2—**Morris County Fire School,** to be held 8 p.m. at Dover High School, Dover, N. J. For information, contact Robert H. Wright, Publicity Committee, Long Hill Lane, Chatham, N. J.

Oct. 4-6—**Ohio Fire Chiefs' Association.** Annual meeting, Hamilton, Ohio. General Chairman, Chief George Schlotterbeck, Fire Headquarters, Hamilton, Ohio.

Oct. 6-7—**Erie County, Pa., Firemen's Association and American Firemen's Association.** Joint meeting, Erie, Pa. For information, contact Lieutenant Dale Hogg, Secretary, American Firemen's Association, c/o Division of Fire, 5301 Mayfield Road, Lyndhurst, Ohio.

Oct. 8-9—**Georgia State Fire College—Fire Engineers' Course,** to be held at #7 Fire Station, Atlanta, Ga. Director, Harry Phillips, 46 Courtland Street, S. E., Atlanta 3, Ga.

Oct. 15-18—**Kansas Fire School.** Annual meeting, University of Kansas, Lawrence, Kans. Director, Clyde A. Babb, 111 Fraser Hall, University of Kansas, Lawrence, Kans.

October 16—**New Jersey Fire Chiefs Association.** Conference on radiation hazards, Rutgers University, New Brunswick, N. J. For information, contact M. A. Chaffee, Director, c/o Rutgers University, New Brunswick, N. J.

Oct. 22-26—**National Safety Council.** Annual Safety Congress and Exposition, Chicago, Ill. For further information write R. L. Forney, Secretary, National Safety Council, 425 N. Michigan Avenue, Chicago 11, Ill.

Oct. 23-25—**Illinois Firemen's Association.** Annual meeting, Springfield, Ill. Secretary, Roy W. Alsip, Box 8, Champaign, Ill.

Oct. 24-26 (tentative)—**Arizona State Fire Training School.** Annual meeting, Phoenix, Ariz. Director, Battalion Chief Jake Siken, Fire Fighting Instruction Supervisor, 49 South 1st Street, Phoenix, Ariz.

Nov. 2-3—**International Rescue and First Aid Association.** Annual meeting, Toledo, Ohio. For information, write Max Spray, 201 South Washington Street, Alexandria, Va.

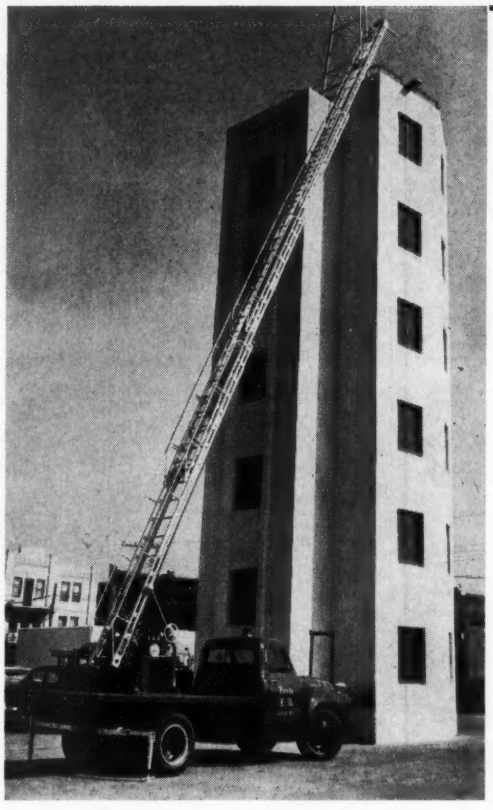
November 3—**Keystone State Fire Chiefs Association.** Fall meeting, Mt. Pocono Fire Station, Mt. Pocono, Pa. For information, contact Lewis M. Atkinson, Recording Secretary, Malvern, Pa.

November 6—**Morris County Fire School,** to be held at Mendham School, Mendham, N. J., at 8 p.m. For information, contact Robert H. Wright, Publicity Committee, Long Hill Lane, Chatham, N. J.

November 11—**Great Lakes Division, International Association of Fire Chiefs.** Annual meeting, Hotel Alcazar, Miami, Fla. Secretary-Treasurer, Chief Elmer Stough, 605—4th Street, Lorain, Ohio.

Nov. 12-16—**International Association of Fire Chiefs.** Annual meeting, Miami, Fla. Secretary-Manager, B. Richter Townsend, Hotel Martinique, Broadway at 32nd Street, New York 1, N. Y.

December 4—**Morris County Fire School,** to be held at Morristown High School, Morristown, N. J., at 8 p.m. For information, contact Robert H. Wright, Publicity Committee, Long Hill Lane, Chatham, N. J.



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This picture shows the McAlpine Drill Tower (Oklahoma City, Oklahoma) which is full six stories in height. Note how this 65 foot MEMCO AERIAL LADDER would make it possible for the men in your Department to fight fires the modern way—from above, *and* the MEMCO AERIAL LADDER will serve equally well in rescue work.

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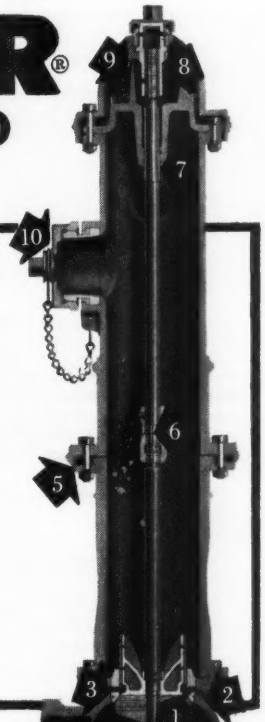
AWWA IMPROVED FIRE HYDRANTS



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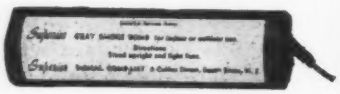
FIRE PREVENTION WEEK

OCTOBER 7-13

will focus attention on the fire fighting services. Impress your hometown citizens with a well executed program of your latest fire fighting techniques. For a safe and really impressive demonstration simulating actual fire conditions, use Superior Smoke Items. All are NON-TOXIC, LEAVE NO RESIDUE and CONTAIN NO EXPLOSIVES.



The Superior Gray Smoke Bomb (illustrated) burns for 2-3 minutes generating 25,000 cubic feet of smoke.
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All Superior products are guaranteed. Prices are f.o.b. factory.

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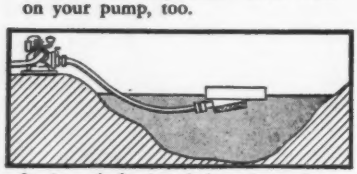
ANY WATER SOURCE NOW USEABLE!

The new Float Dock Strainer makes most any stream or pond useable for fighting rural fires or for filling your tanker. Float Dock will draft in deep or shallow water — off the bottom and drafting always the cleanest water with never a whirlpool or loss of suction at any time. Saves wear on your pump, too.



Strainer drafts just below the surface and down to the last few inches.

WRITE **your distributor or manufacturer for brochure and prices. Specify hose size.**

Manufactured Only By
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Box 361, Rock Island, Illinois

Miami Primed for I. A. F. C. Conclave

Focal point of the 83rd Annual Conference of the International Association of Fire Chiefs, November 12-15, will be the spacious new Dinner Key Exposition Building shown in left foreground of this airplane view of Miami's beautiful waterfront. The new City Hall and docks are at right center, with city's skyline at upper left.

The Exhibit Committee Chairman, Chief Clyde Canning of Midvale, Utah, reports a sell-out of exhibit space. The Program Committee, headed by Chief Raul Gandara, of Puerto Rico, has mapped an outstanding balanced program of educational and entertainment features. Host Chief Newton Wheeler and his busy aides, promise pleasurable and profitable entertainment for all. President Chief William Fitzgerald, the officers and Board of Directors, and the busy Headquarters Office, B. Richter Townsend, Secretary-Manager, are buttoning up the final details.

Exhibitors at I. A. F. C. Conference

Chief L. C. Canning of Midvale, Utah, chairman of the Exhibit Committee, has announced that 94 exhibitors have taken space at the Miami Conference of the International Association of Fire Chiefs, November 12-15. The complete list to date follows:

Akron Brass Manufacturing Co., Inc.
Amco Corp.
American City Magazine
American District Telegraph Company, Inc.
American Fire Apparatus Company
American-LaFrance Corporation
American-Marsh Pumps, Inc.
Atlas Safety Equipment Company, Inc.
Batrow Laboratories
Bi-Lateral Fire Hose Company
Blackhawk Manufacturing Company
Blackinton, V. H., & Co., Inc.
Boston Woven Hose and Rubber Company
Boy Scouts of America
Cairns and Brother, Inc.
Chevrolet-Central Office
Chiksan Company
Circul-Air Corp.
Civil Defense
Continental Motors Corporation
Cornelius Company
Decca Navigator System, Inc.
Delco-Remy Division, General Motors Corp.
Dictaphone Corporation
Dumont, Allan B., Laboratories
DuPont de Nemours, E. I., & Company
E & J Manuufacturing Company
Eastman, Samuel, & Company, Inc.
Electronic Protection, Inc.
Elkhart Brass Mfg. Co., Inc.
Encyclopaedia Britannica, Inc.
Eureka Fire Hose Div., U. S. Rubber Company
Fabric Fire Hose Co.
Falcon Alarm Co., Inc.
Federal Sign & Signal Corp.
Fire Engineering
Florida State Fire College
Food Machinery and Chemical Corporation
Ford Motor Company
Four Wheel Drive Auto Company
Fyr-Fyter Company
Fyr-Larm Co. Inc.
Gamewell Company
General Detroit Corp.
General Electric Company
Goodall Rubber Co.
Goodrich, B. F., Company
Hale Fire Pump Company
Hall-Scott, Inc.
Hannay, Clifford B., & Son, Inc.
Hewitt-Robins Inc.
Homelite Corporation
Howe Fire Apparatus Company
Key West Chamber of Commerce
Kohler Company
Lavigne, Donald S., Inc.
Leece-Neville Company
Mackle Company, Inc.
Mack Trucks, Inc.
Mars Signal Light Company
Maxim Motor Company
McIntire, F. N., Brass Works, Inc.
Memco Aerial Ladder Co.
Miami Fire Equipment, Inc.
Miami Fire Prevention Bureau
Mine Safety Appliances Company
Monroe County Chamber of Commerce
Motorola Communications & Electronics
Nielsen-Rionda, Inc.
Onan, D. W., & Sons, Inc.

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Mullikin Company
Rockwood Sprinkler Cmpany
Rupert Parachute Co., Inc.
Safa Alarm Div., The Fyr-Fyter Company
Safety First Products
Scott Aviation Corporation
Simpson, William, Sons & Co., Inc.
Sireno Company, Inc.
Smith, D. B., & Company, Inc.
Southern Bell Telephone & Telegaph Co.
Standard Alarm & Signal Co.
Standard Chemical Company
Stephenson Corporation
Superior Coach Corp.
Super Vacuum Manufacturing Co.
Visual Slide Company
Warrenton Woolen Co.
Washington Products Co.
Waterous Company
Wooster Brass Div., The Fyr-Fyter Co.

New York Firemen Pay Return Visit to Danbury, Ct.

Over 200 New York firemen and members of the City's Civil Defense Emergency Corps who had come to the aid of residents of Danbury during the flood of October, 1955, returned to that city August 8th as guests of honor.

In remembrance of the two days the 34-vehicle motorcade had labored in behalf of the stricken community, a gala clambake was held for them at Candlewood Lake. Mayor John A. Define Jr. and Connecticut's Director of Civil Defense, Leo J. Mulcahy welcomed the men and asked them to accept "the hospitality of a grateful people." Danbury's Fire Chief George C. Hanna headed the reception.

Police Drill Provides Firemen with Action

The Saco, Me., police held a training drill on July 4th using tear gas and firearms at an abandoned barn near the community. During the training session the barn was set on fire and burned to the ground.

Firemen arrived in time to prevent the blaze spreading to the woods nearby.

Book Shelf

FIRE AND ACCIDENT LOSS CONTROL INDEX AND DIRECTORY — *Published in looseleaf form, approximately 8½ x 11 inches, by Loss Control Associates, 629 Oakmont Drive, Plattsmouth, Neb., price $48.50.*

An extensive information service which provides carefully compiled fire and accident control data catalogued and indexed for ready reference. The service consists of three parts: The Index, covering approximately 10,000 subjects and 50,000 separate references contained in 1,000 pages; The Directory, a listing of publications contained in the Index; and the Supplemental Service, which maintains each part of the Index and Directory in up-to-date form.

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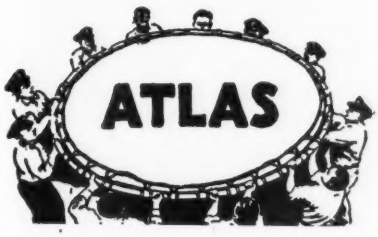

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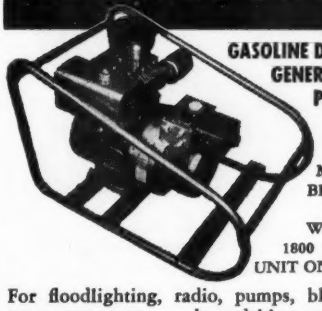
GEN-E-MOTOR
PORTABLE ELECTRIC POWER



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Pioneer generators require little space, are ruggedly constructed. Models **BHA-20L,** 2300 Watts, and **WHA-25L,** 2800 Watts, skid mounted as above for easy handling.

WRITE TODAY for new catalog and prices on 250 to 3600 watt units designed for Fire Department use.

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PORTABLE
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Rate of flow is regulator-controlled . . . keeps within medically safe limits automatically. Two standard medical cylinders provide enough oxygen for up to one hour at high flow rate; up to two hours at moderate rate.

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SANDERS FIRE

Continued from page 749

the Sanders Building from the roof of the Grayson Building, and other lines in the rear and three lines operating through windows in the Majestic Building to the south, literally surrounded the blaze.

Early in the operation, the fire fighters cut holes in the roof of the Sanders Building to ventilate it, and distributor nozzles were operated from lines taken up the rear fire escape. When it became apparent the roof might collapse, and Chief Blohm on the ground received warnings via walkie-talkie radio from his observers atop the Grayson Building, these crews and lines were removed and operated from the exposures directly into the flames which surged skyward after the roof gave way.

Three and one-half hours after the initial alarm, Chief Blohm declared that the fire was under control and began releasing all third, fourth and fifth alarm companies. By midnight, relief units arrived to replace weary firemen; by 6:00 a.m. the next morning the last fire company had returned to its quarters and the fire was over.

Notwithstanding the almost total destruction of the upper floors, there was little evidence of fire in the basement, first or second floors, except in the previously mentioned concealed space in the ceiling of the second floor.

The roof and sections of the other floors collapsed, their weight in turn dropping part of the second floor. The floor assembly above the second floor remained in place although severely damaged by fire. None of the iron columns failed and few showed signs of heat. Nor did any wood columns fail although many were deeply charred.

The open stairway on the south side was entirely destroyed, indicating that the fire may have extended vertically to upper floors via this avenue.

Although it is estimated that at the height of the fire about 15,000 gallons of water per minute were being thrown into the structure—over 2½ million gallons used in the fight—at no time did the fire department experience a lack of water. During the peak of the operation some forty 2½-inch lines were operated.

The domestic supply was augmented during the engagement by the use of a fireboat, located at the foot of Woodward Avenue, which pumped into the old high pressure system (reportedly to be discarded).

The weather played little part in the fray. According to weather reports, during the fire the temperature varied from 58 degrees F. to 60 degrees F. The wind was west to west southwest, 8 to 15 miles per hour.

Some conclusions

The fire again pointed to the requirements for city building codes that only buildings with floors and roofs of fire resistive construction should be erected in the heart of downtown areas.

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2000-foot beam

Most powerful, heavy-duty hand lamp of its size. Adjustable 6-inch head. Operates on four standard No. 6 dry cells.

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Popular price, light weight, easy to carry. Adjustable 5-inch head. Holds two standard 6-volt lantern batteries. Operates on one; other is a spare.

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COMBINATION

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Fig. 156

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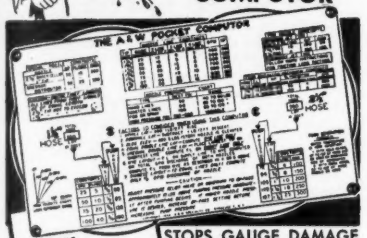

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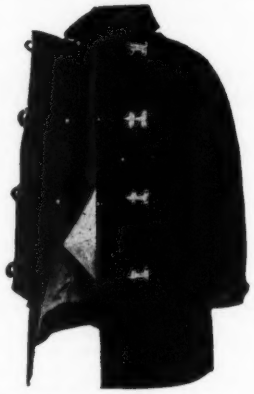

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It demonstrated also the fallacy of unprotected stairways and other arteries in combustible structures without sprinklers.

It is reported that had the joist spaces been properly fire stopped, a fire of such magnitude might not have occurred.

On the credit side, the supervised fire alarm service picked up the blaze; there was little of the delayed alarm in this instance.

The manually-operated water curtain located over windows of the Majestic Building to the south, not only protected the fire fighters operating hose lines at these windows but also protected the glass and frames from heat.

Another minor, but important item was the use of portable pack set radio, incidentally borrowed from the police for the occasion (the fire department's walkie-talkie sets had not arrived), which aided materially in directing fire control operations and safeguarding the men.

Finally, the employment of aerial ladders and ladder pipes as water towers (which were conspicuous by their absence), beat back the fire from the windows, the water from the heavy streams penetrating deeply into the heart of the fire.

HIGH SCHOOL FIRE

Continued from page 752

which was "about par" according to Principal Winston Nelson.

The fire was discovered by Teacher Ray Spaugh who found the wall between his classroom and the girls' restroom too hot to touch. Mr. Spaugh ran across the hall to the principal's office and turned in the double alarm which alerted other teachers and students, and also notified the Pomona fire board.

Principal Nelson was at lunch in the basement cafeteria and rushed upstairs when he heard the school warning bell.

"I always know when a fire drill is being held," he said, "but when I smelled smoke in the hall, I knew this was no false alarm."

Determined work by Chief Crawford and his men aided by the mutual aid companies and manpower, saved the girls' and boys' gymnasiums to the rear of the main school building.

Ugly clouds of black smoke were visible for 15 miles and drew thousands of spectators and near-hysterical parents. At the height of the fire some 30 hose lines were operating on the fire and newspapers quoted water officials as saying they were able to supply 10,000 gallons a minute under 150 pounds pressure. The longest hose lay was only 900 feet.

Everett Philips, manager of the Pomona Water Department, said there was sufficient water pressure throughout the four hours firemen fought the blaze. He estimated close to 2,000,000 gallons of water were used.

"Minimum pressure during the fire was 35 pounds per square inch," reported James Van Wagner, assistant water department head. "In most cases pressures

Continued on page 793

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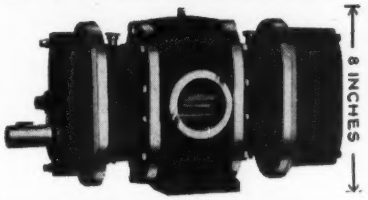

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Mechanical foam playpipes, Phomaire, complete with pickup tube (Worth $55.00). Our price only	15.00 ea.
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Hale pump FZ, 90 gpm @ 60 psi @ 139 ft. hd; 3" x 10 ft. suction hoses; Siamese 2½ x 1½ x 1½; (2) 1½" nozzles; (10) 50 ft. lengths of 1½ fire hose, cpld. All 20% less than cost. All for $760 fob Pottstown Machine Co., Pottstown, Pa.

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Leading Manufacturer's fireman's belt, standard hook and hand brake model. At 50% off. Foam extinguisher, back pack model complete with 5 gal. tank, playpipe, hose and straps, mfg. by leading extinguisher manufacturer. Sale at 60% less than cost.

JEFF LEE PRODUCTS,
40 Park Place,
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FOR SALE

1926 AHRENS-FOX truck 1000 G.P.M. Piston Pump, 60 gal. booster tank, pneumatic tires, wind shield, painted 1949, two 10 ft. hard suctions and others too numerous to mention. engine in good running condition. Bids must be submitted by November 5th. We reserve the right to accept or reject bids. This apparatus may be seen at the Columbia Fire Co. No. 1, 268 Locust St., Columbia, Penna.

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USED SIRENS AND BEACON RAY LIGHTS (6 x 12 Volts) FOR SALE. TRADE IN YOUR OLD SIRENS. FOR FULL INFORMATION,

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Horse drawn hose wagon, with or without chemical tank. State price, condition & equipment. Write to:

N. J. DIONISIO
271 SO. GRAND AVE.
BALDWIN, L.I. N.Y.
Telephone: Baldwin 3-0656

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Nationally known manufacturer of top quality hose has open territories in Michigan, Indiana, Southwest Ohio, Eastern Kentucky, Alabama and Texas. Opportunities to make money full or spare time selling our complete line of Fire, Chemical and Suction Hose to Towns and Cities.

Send full information including lines in territories not traveled.

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IT FEATURES SAFETY FIRST
because it's . . .
"SAFETY CONDITIONED"
with
"SCOTCHLITE"

JANESVILLE fire coats, either duck or rubber, are available fully "SAFETY CONDITIONED" with properly placed "SCOTCHLITE" trim that will reflect light with dazzling brilliance on dark streets or in smoke-filled buildings.

"SCOTCHLITE" bands extend around cuffs and bottom of coat in addition to vertical strip on front flap and a horizontal band across the back.

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Promotional Study Course for Firemen—$3.00

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(*The Above Prices Are All Postpaid*)

Book Department

FIRE ENGINEERING

305 East 45th Street
New York 17, N. Y.

Continued from page 791

delivered to engines were in excess of 60 pounds."

Superintendent A. E. Grady of the department had 15 to 20 men working on the complicated water supply operations. Their work consisted of operating valves and pumps, regulating pressure and supervising personnel.

Radio pays off

An interesting sidelight was the use of eight Water Department cars equipped with short wave radios to coordinate operations.

"These radio cars paid for themselves in one afternoon," said Mr. Philips.

The Salvation Army was quickly on the scene, too, and finding that perspiring firemen wanted liquids rather than food, served 264 bottles of Coca-Cola furnished free by the local bottling plant. Captain Al Longden of the Salvation Army said one case of the soft drink was hoisted to the top of the high school where firemen were battling the flames soaring through the roof.

The main building of the Pomona High School had served the community for nearly 32 years.

Roy G. Decker, president of the Board of Education, said after going over preliminary estimates of damage that repairs would cost at least $1,000,000. Two months before the fire the voters of Pomona approved a $7,500,000 bond issue which included $2,000,000 for construction of a new high school in West Pomona. The burned building was Pomona's only high school.

Three Pomona firemen, Captains Clifford Base and Curly Deyo and Firemen Dell Hope suffered minor injuries.

Paul C. Ditzel

Motel Owner Dies Fighting Fire as Train Blocks Firemen

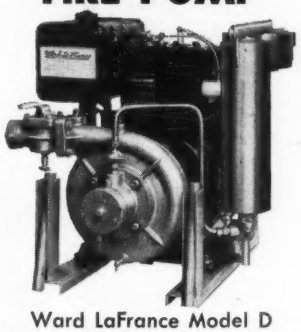
As firemen stood helplessly waiting for a train to clear a crossing, Stanley Zuras unsuccessfully fought a fire in his motel near Mackinaw City, Mich., recently. When he realized the fire was out of control, Mr. Zuras ran outside seeking aid, where he was stricken with a heart attack.

After the train moved on, firemen put out the fire which had destroyed the interior of the 12-unit motel. An explosion of undetermined origin started the blaze.

N. Y. Public Library Wants Manufacturers' Bulletins

A Fire Prevention Section has been set up in the Eastern Parkway Branch of the New York Public Library. Miss Hellvern, the librarian in charge of the new section will appreciate receiving copies of fire apparatus and appliance manufacturers' bulletins. They should be addressed to her at the Eastern Parkway Branch, New York Public Library, Eastern Parkway and Schenectady Avenue, Brooklyn, N. Y.

Portable . . . light weight
FIRE PUMP



Ward LaFrance Model D

- Husky 8 ¼ H.P. Briggs & Stratton engine.
- Exhaust primer.
- Folding handles . . . permit easy carrying.
- Aluminum, light weight, corrosion resistant pump.
- Weighs only 130 pounds.
- Compact design . . . low price.

Ideal for emergencies, stand-by protection and hundreds of other uses.

Domestic & foreign distributors wanted.
Write today—

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ON THE FIRST PITCH!

PORTO-RAK HOSE STORAGE and LOADING UNIT

Since its introduction just a few months ago—Porto-Rak has been enthusiastically received. Saves valuable space. Holds 1800 ft. of 2½" hose —proportionately more of 1½"—in an 8 ft. space (when loading table is detached). Roll it right up to the truck for complete hose reload—out of the way when not in use. Equipped with locking fiber wheeled casters.

FIRE HOSE DRYER ➡

The patented, electrically operated Circul-Air hose dryer circulates prewarmed fresh air through loosely coiled hose at the rate of 5 to 6 air changes per minute. Saves floor space, hard work and lengthens hose life. No other drying method is so fast—so economical—so easy to use. Circul-Air is the preferred drying method in over 4,000 leading Fire Departments.

ACCEPTED—APPROVED—RECOMMENDED

Approved by Underwriters' Laboratories . . . and Canadian Standards Association. Recommended by all leading fire hose manufacturers.

LABORATORIES APPROVED

NEW *Roto-Jet* HOSE WASHER AUTOMATICALLY WASHES — RINSES — DRAINS HOSE

ROTO-JET Washes, Rinses, Drains hose thoroughly and quickly. Hose is self-propelled. Simple one man operation. With or without detergents ashes, dirt, mud and sludge are automatically scrubbed out and flushed away. Saves time. Lengthens hose life. Now . . . with Foot Pedal Operation.

THE A-Z FIRE HOSE WASHER

This modestly priced washer drains and rinses the hose as it washes. 4 Roto-jets constantly spray hose with clean, fresh water—all sediment is flushed through collecting pan and down the drain. The brisk action of the cleaning brushes moves the hose slowly through the washer. No strain. No fatigue. Turn tables keep the hose OFF the floor. They're excellent for reloading truck (several lengths may be stacked on each) or loading the hose dryer.

Write for New Folder

A-Z FIRE HOSE WASHER
ROTO-TABLES SOLD SEPARATELY

THE CIRCUL-AIR CORPORATION
575 EAST MILWAUKEE
DETROIT 2, MICHIGAN

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FIRE ENGINEERING

SEPTEMBER, 1956

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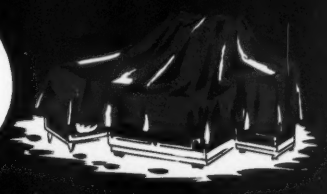
75% Water can be your enemy!

NOW! GET MORE PROTECTION

for salvage operations...for your equipment with lighter...tougher

TUFF-TARP®

by Sawyer



America's No. 1 Vinyl-coated Nylon

Water is your best friend at *any* fire. But did you know that it causes 75% of the $1,000,000,000 damage done by fires every year! To get the best protection there is for salvage operations and for your equipment — protection against your enemy water, as well as smoke, chemicals and weather — get TUFF-TARP. No other covering material on the market offers the advantages of TUFF-TARP.

EXHAUSTIVE TESTS IN THE FIELD PROVE THAT TUFF-TARP

- carries better — packs better!
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- is easier to move while unfolded!
- spreads out easily, quickly!

in addition:

- has greater flame resistance!
- will not crack or peel at −30° F – +180° F!
- will not mildew or rot!

Get the protection of **TUFF-TARP** *and you get the best!*

For complete details, contact

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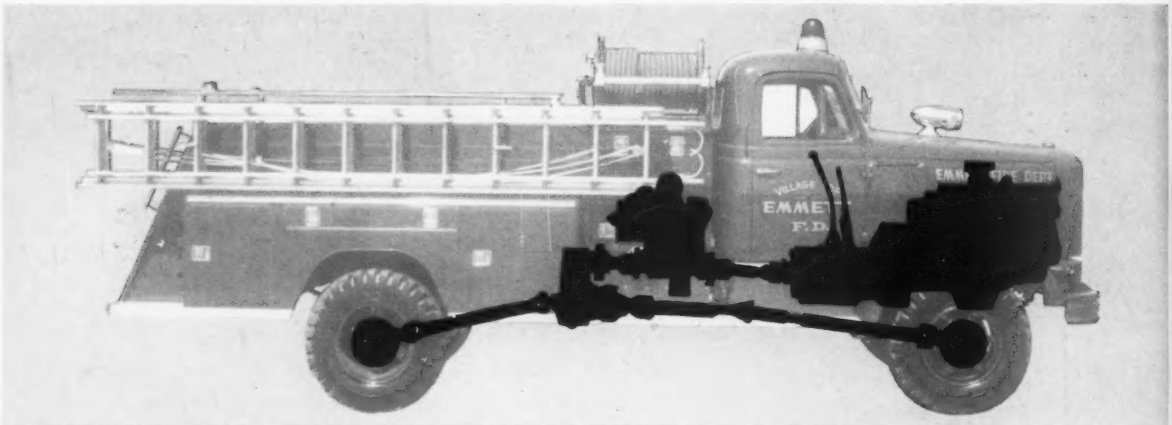
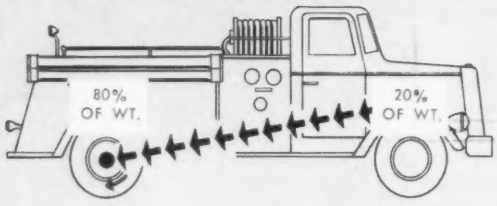
How balanced weight distribution makes FWD safer for high speeds



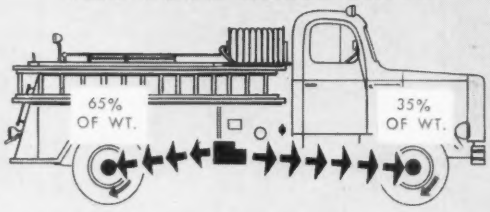
ORDINARY 2-WHEEL DRIVE



Spins easily because it is over-powered.

Drifts without power—may lock and be pushed into skids.

FWD FOUR WHEEL DRIVE



Less spin because power matches weight.

Power prevents locking and skidding—holds on turns, steers easily.

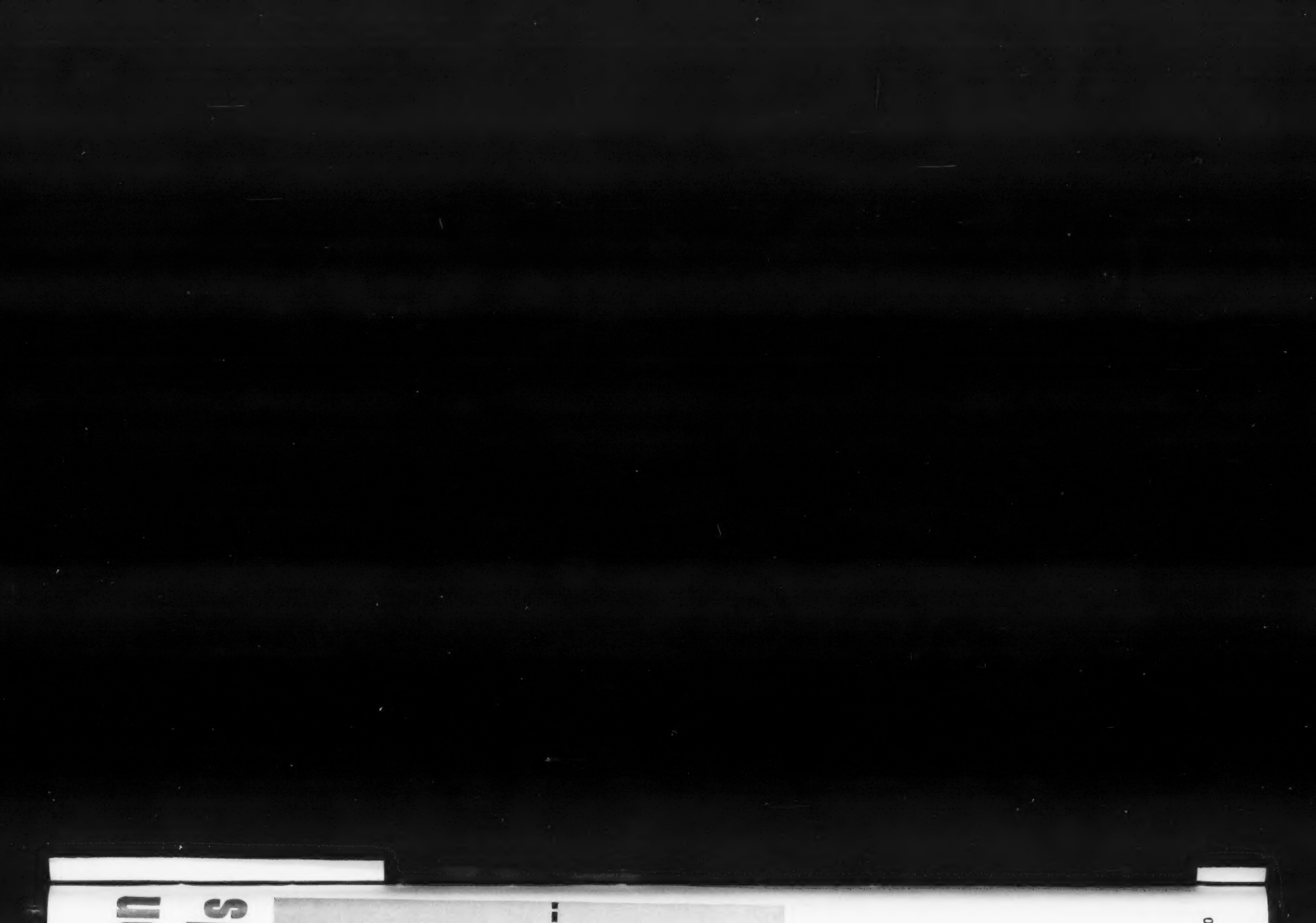
Only FWD pumpers have the patented power-divider transfer case and balanced weight distribution that gives you *true* four wheel drive! And Four Wheel Drive is the fastest, safest way to get your equipment into action.

The FWD transfer case transmits instant power to both axles in correct proportion to axle weight . . . gives gripping traction at every wheel. The powered front wheels hold to tightest turns without drift or slip. They pull out of skids rather than being pushed into them.

Driving power is transmitted to both axles for faster getaways; easier steering; faster, safer cornering; greater hill climbing ability; up to 82% greater traction on slippery streets and powerful traction that goes through hub-deep mud and loose sand or radiator-deep snow to get to off-highway water sources.

FWD pumpers carry the finest fire-fighting equipment available, designed with the experience of 43 years. But most important, you can get it into action faster and safer because it has Four Wheel Drive!

Pumper demonstrations are now being put on by FWD dealers throughout the country. Check with FWD for dates of demonstrations in your area.

Builders of America's Finest and Safest Fire Apparatus

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